

功率器件产品手册

2025版

Power Device Catalog

使命：让中国芯走向世界

愿景：成为一流的国际化半导体公司

MISSION: Empower the world with Chinese Semiconductors

VISION: A global leader in semiconductor company



浙江翠展微电子有限公司

ZHEJIANG GRECON SEMICONDUCTOR CO.,Ltd.

价值观：激情 / 敬业 / 诚信 / 合作 / 成长 / 平等

PASSION, DEDICATION, INTEGRITY, COOPERATION, EQUALITY, GROWTH

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公司简介 | COMPANY PROFILE

浙江翠展微电子有限公司（简称“翠展微电子”）成立于2018年5月，公司位于素有“接轨上海第一站”之美称的浙江嘉善县，东邻上海（80公里），西依杭州（98公里），北靠苏州（90公里）。公司注册地址为浙江省嘉兴市嘉善县惠民街道晋吉路88号，公司占地59亩，建筑面积9.7万平方米，包括6万平方米的生产车间，2025年可实现年产300万套IGBT模块的生产能力。

翠展微电子作为一家中国本土的功率器件公司，公司已经可以提供IGBT单管，IGBT模块，SiC单管，SiC模块等一系列功率器件产品，应用市场覆盖汽车、光伏及工业等领域。公司已经构建从芯片设计，模块开发，工艺开发，可靠性设计和方案开发等全生态链技术研发的综合能力，公司目前已经通过IATF16949，ISO14001，ISO9001，ISO17025等体系认证。

翠展微电子立志打破进口垄断，实现进口替代，将公司打造成为新能源半导体行业的中国品牌领军企业。公司将聚焦中国新能源行业的挑战和压力，提供有竞争力的半导体产品和服务，持续为新能源领域客户创造价值。公司坚持以技术为导向，为客户提供个性化、系统级的产品与技术咨询服务，致力于提供优良的技术服务和高性价比的产品，驱动中国芯片产业快速蓬勃发展，共筑中国芯，中国梦！





ZHEJIANG GRECON SEMICONDUCTOR Co., Ltd. (referred to as "GRECON") was established in May 2018. The company is located in Jiashan County, Zhejiang, known as "the first station connecting to Shanghai", with Shanghai (80 km) to the east, Hangzhou (98 km) to the west, and Suzhou (90 km) to the north. Grecon headquarter address is No. 88 Jinji Road, Huimin Street, Jiashan County, Jiaxing City, Zhejiang Province. The company covers an area of 59 mu (9.72 hectares) with a total construction area of 97,000 square meters, including 60,000 square meters of production workshops. It is planned to achieve an annual production capacity of 3 million IGBT modules by 2025.

As a Chinese local power semiconductor company, GRECON offers comprehensive portfolios including IGBT discretes, IGBT modules, SiC discretes, and SiC modules, which are largely used in various markets such as automotive, photovoltaic, and industrial. Grecon professional team is delivering IGBT chip design, module development, process optimization, reliability testing, and system solutions, the company has been certified to IATF 16949, ISO 9001, ISO 14001, and ISO 17025.

GRECON's power semiconductor products enable import substitution through domestic production. Grecon is positioning itself as China's leading semiconductor brand in the renewable energy application. Focusing on the challenges and demands of China's renewable energy industry, we deliver competitive semiconductor products and services while creating continuous value for customers in renewable energy applications. With a technology-driven philosophy, we provide customized, system-level solutions and technical consulting services, dedicated to delivering superior technical support and cost-effective products. By driving the rapid development of China's semiconductor industry, we jointly build the "China Chip" and realize the Chinese Dream.



QUALITY SYSTEM CONSTRUCTION 质量体系建设

质量管理体系认证证书

QUALITY MANAGEMENT SYSTEM CERTIFICATION





实验室能力建设

LABORATORY CAPACITY BUILDING

浙江翠展微电子有限公司（简称“翠展微电子”）建设了拥有2000m²的实验室，也是与浙大共建的全省电磁智能感控与先进电子集成重点实验室，打造集成电路高能级科创平台。实验室2023年9月通过CNAS认证，具备针对模块的全套可靠性测试，从而提高产品质量和可靠性，45KW、250KW大功率电机台架，可以为客户提供在应用端更进一步的测试，提升产品在应用端的表现。实验室立足于根据客户应用真实工况提供一站式的测试服务，不仅仅服务于我们产品本身，更服务于客户的全环境测试。

GRECON has established a 2,000m² laboratory, which is also a provincial Key Laboratory of Electromagnetic Intelligent Sensing and Advanced Electronic Integration joint lab built with Zhejiang University, creating a high-level scientific innovation platform for integrated circuits. The laboratory obtained CNAS certification in September 2023, equipped with complete reliability testing capabilities for power modules which optimize product quality and reliability. This lab has 45 kW and 250 kW high-power motor test benches, it can provide customers with application-oriented performance validation to optimize product performance according to the real application conditions. The laboratory is committed to offering one-stop testing services that simulate actual customer application scenarios, serving not only our own product but also supporting customers' sophisticated environmental test conditions.

| 测试项目 Test Items | AEC-Q101 | AQG-324 | 汽车行业标准 Automotive industry standards |
|-------------------------|----------|---------|---|
| 参数测试 (Static & Dynamic) | √ | √ | √ |
| 静电测试 (ESD) | √ | × | × |
| 绝缘测试 (Insulation test) | × | √ | √ |
| 机械振动 (VT) | √ | √ | √ |
| 机械冲击 (MS) | √ | √ | √ |
| 高温老化 (HTS) | √ | √ | √ |
| 低温老化 (LTS) | √ | √ | √ |
| 温度循环 (TCT) | √ | × | √ |
| 温度冲击 (TST) | × | √ | √ |
| 高温高湿无偏压 (UHASt) | √ | × | × |
| 高温反偏 (HTRB) | √ | √ | √ |
| 高温栅偏 (HTGB) | √ | √ | √ |
| 高温高湿反偏 (H3TRB) | √ | √ | √ |
| 功率循环 (PC) | √ | √ | √ |
| 可焊性 (SD) | √ | × | √ |

高温存储试验 (HTS)

High temperature storage test

测试目的

- 验证高温存储对功率模块的影响

测试标准

- IEC 60749-6:2002

试验条件

- 试验时长: 1000H
- 试验温度: ≥125°C

失效标准

- IEC 60749-6:2002
- 待测试样在试验后必须能保持电气功能特性的完整性
- 所有特性参数必须符合标准
- 使用声扫检测焊接点的分层情况



温度冲击试验

Temperature shock test

测试目的

- 验证模块对被动温度变化产生机械应力的抵抗能力

测试标准

- IEC 60749-25:2003

试验设备

- 两厢式冷热冲击试验箱

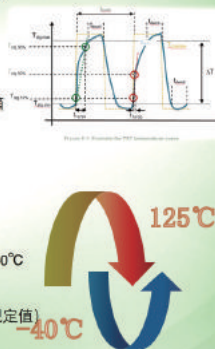
失效准则

- 试验后热阻升高20%

试验条件

- 最低存储温度: -40°C
- 最高存储温度: 125°C/150°C
- 转移间隔: <30s
- 保温时间: >15min (或规定值)
- 循环次数: >1000次

注: 在测试过程中, 必须使用热电偶或类似温度测量装置, 已确保测试样满足规定的温度限制要求和保温时间要求



功率循环试验 (分钟级)

Power cycle test

测试目的

通过对待测试样循环施加、关断负载电流, 并将负载电流的导通时间限制在一定范围内, 达到在靠近芯片附近的互连层 (chip-near interconnection) 上施加目标应力的目的。

测试标准

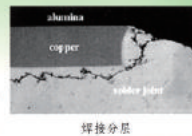
IEC 60749-34:2011

试验条件


- 负载电流加载时间: >15s
- 负载电流幅值: >0.85ICN
- 栅极电压: 典型值: 15V

失效判断

导通压降<5%, 热阻变化<20%, 产品无明显外观损伤, 常温电性能参数符合标准要求, 且试验后经超声波扫描评估焊料的疲劳情况无明显失效



焊接分层



功率循环试验 (秒级)

Power cycle test

测试目的

通过对待测试样循环施加、关断负载电流, 并将负载电流的导通时间限制在一定范围内, 达到在靠近芯片附近的互连层 (chip-near interconnection) 上施加目标应力的目的。

测试标准


IEC 60749-34:2011

试验条件


- 负载电流加载时间: <5s
- 负载电流幅值: >0.85ICN
- 栅极电压: 典型值: 15V

失效判断

导通压降<5%, 热阻变化<20%, 产品无明显外观损伤, 常温电性能参数符合标准要求, 且试验后经超声波扫描评估焊料的疲劳情况无明显失效



键合线失效

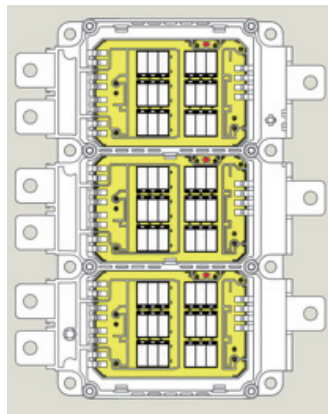
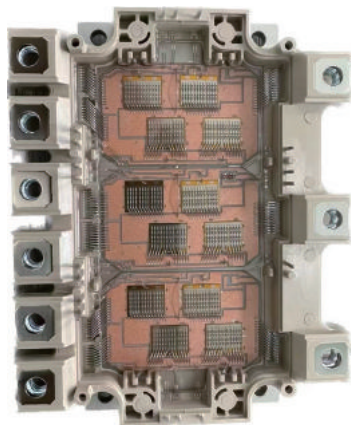
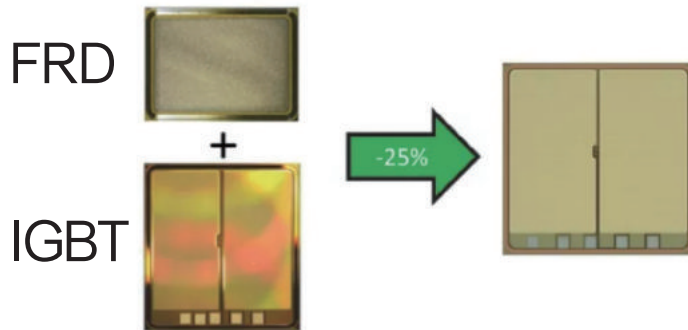


国产首款汽车级RC IGBT晶圆

CHINA'S 1ST AUTOMOTIVE GRADE RC IGBT WAFER

翠展自主研发的RC-IGBT采用创新架构与工艺技术，通过优化IGBT与FRD区域布局，成功解决了快速回流现象与FRD功率损耗提升的双重挑战，同时实现芯片面积缩减25%。

GRECON RC-IGBT has fully IP rightsadopts innovative architecture and process technology. By optimizing the layout of IGBT and FRD regions, it successfully solves the dual challenges of FRD current commutation and power losses issue, while achieving a 25% reduction in chip area.



翠展率先在国内发布基于RC-IGBT的模块产品，HPD封装规格最高可达750V/1100A

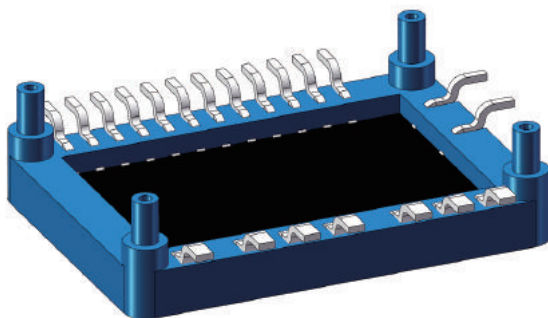
GRECON is the first company to release RC-IGBT power modules in HPD package, with ratings up to 750V/1100A.

定制化灌封多合一封装

CUSTOMIZED POTTING MULTI-IN-ONE PACKAGE

替换HP1、DC6等传统设计的灵活设计方案

Flexible design solutions to replace traditional designs such as HP1 and DC6



| 项目/Item | 参数/Parameter |
|-------------------------------------|----------------|
| 工作电压范围 Operating voltage range | 400V-470V |
| 峰值电流 Peak current | 28A |
| 持续电流 Sustained current | 18A |
| 最高耐受电压 Maximum withstand voltage | 650V |
| 散热方式 Cooling Method | 冷媒/refrigerant |
| 振动等级 Vibration level | ≥10G |

- ◎ 贴片设计，支持PCB回流焊
- ◎ 支撑柱二段式设计，便于引脚焊接
模块底部可放置电容电阻
- ◎ 弹性引脚,释放安装与振动应力
- ◎ 高Tg，低模量液态环氧，
满足车用空调严苛条件
- ◎ 内置NTC

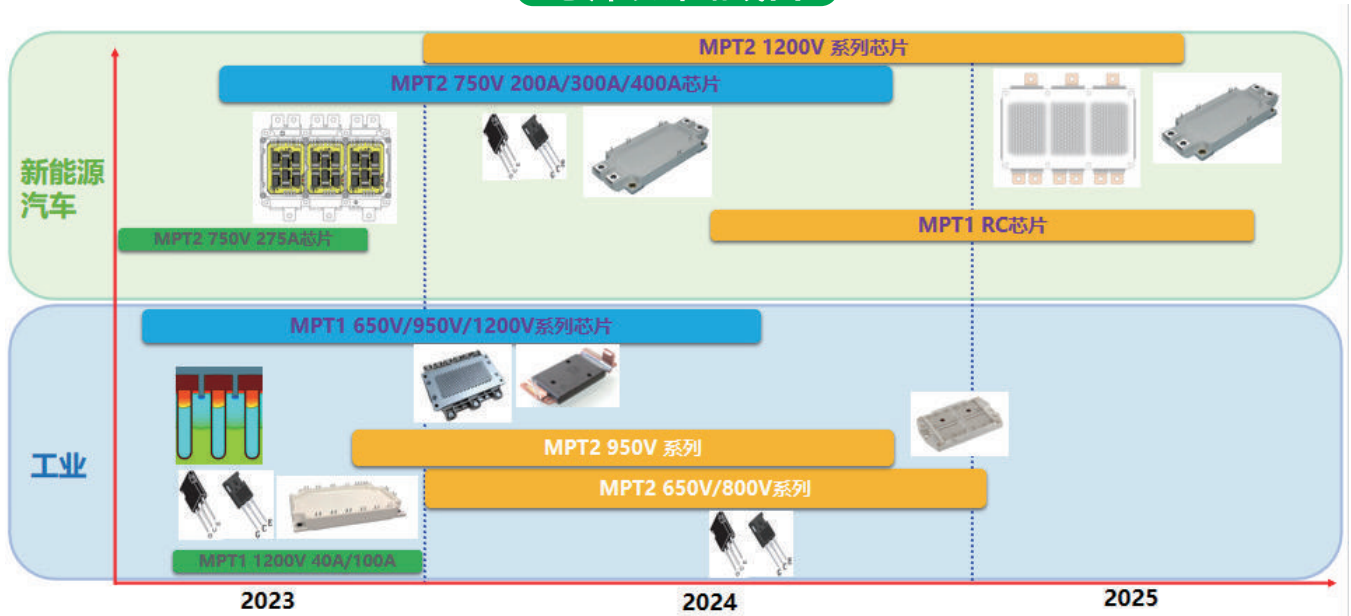
| 型号 | GCP50GX65FFT6 | GCP40GX120FFT6 |
|----------------------------|-------------------------------|---------------------------------|
| 芯片配置 Chip configuration | IGBT:650V/50A FRD:650V/30A | IGBT:1200V/40A FRD:1200V/30A |

提升芯片综合效能的MPT2结构

THE MPT2 STRUCTURE IMPROVES THE OVERALL PERFORMANCE OF IGBT

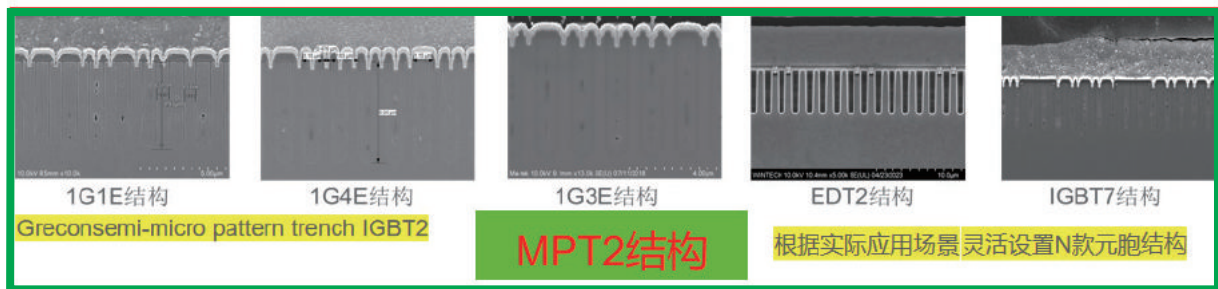
IGBT CHIP DESIGN ROADMAP

芯片设计路线图



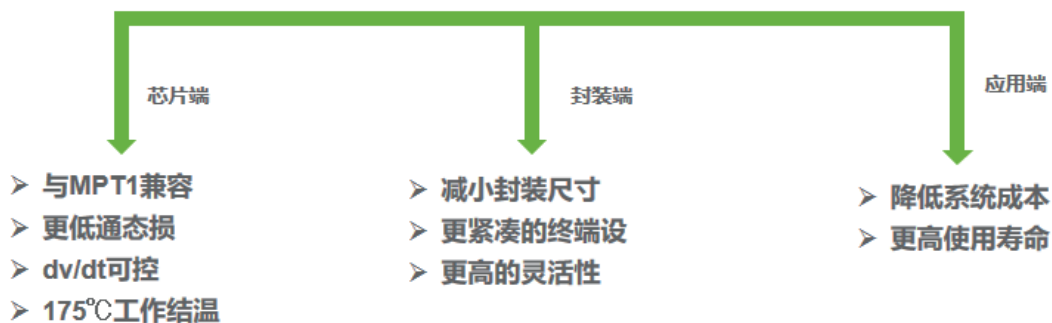
GRECON's In-House MPT2 Architecture

翠展全自研MPT2结构



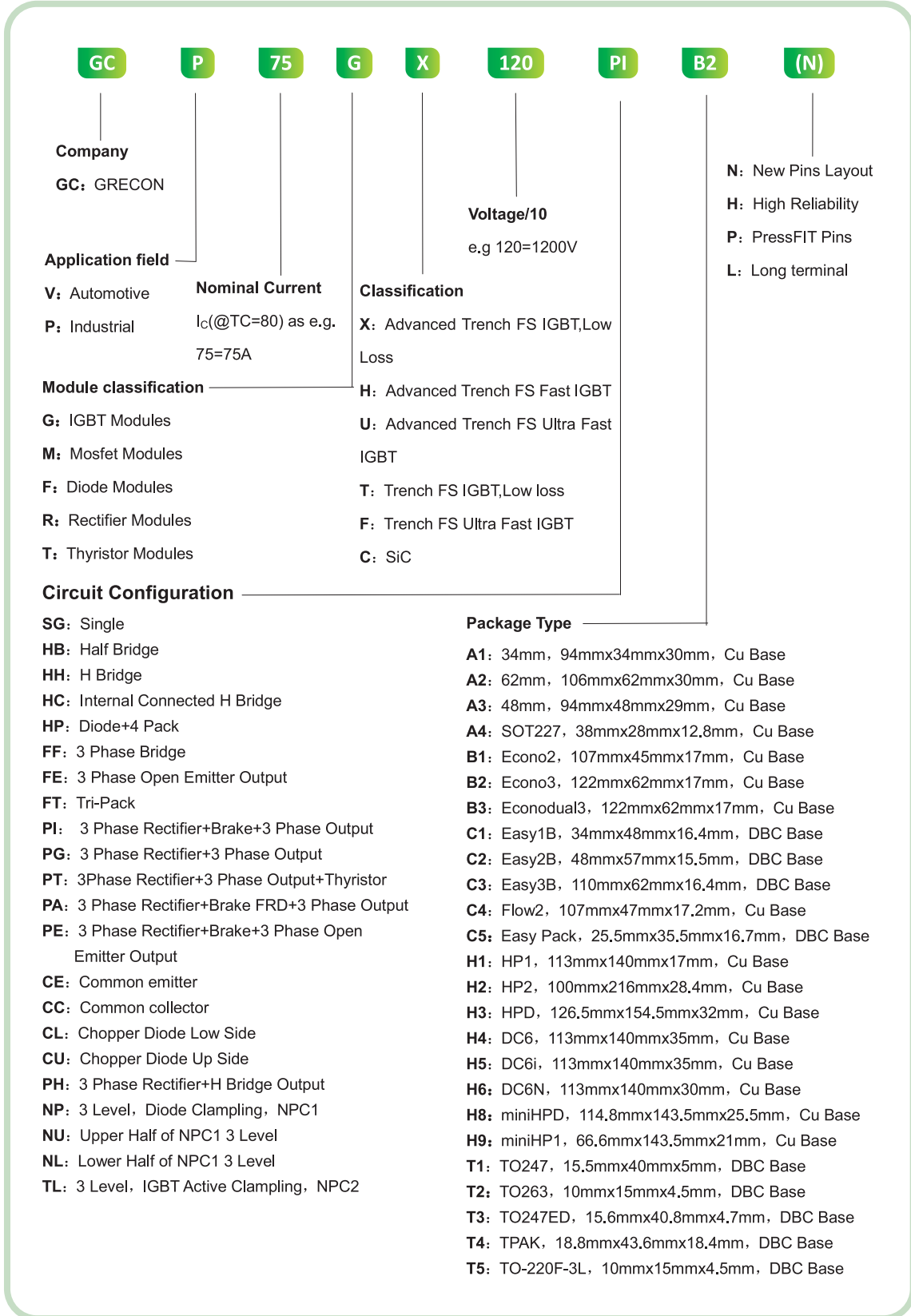
GRECON's In-House MPT2 Architecture

翠展全自研MPT2结构



功率器件命名规范

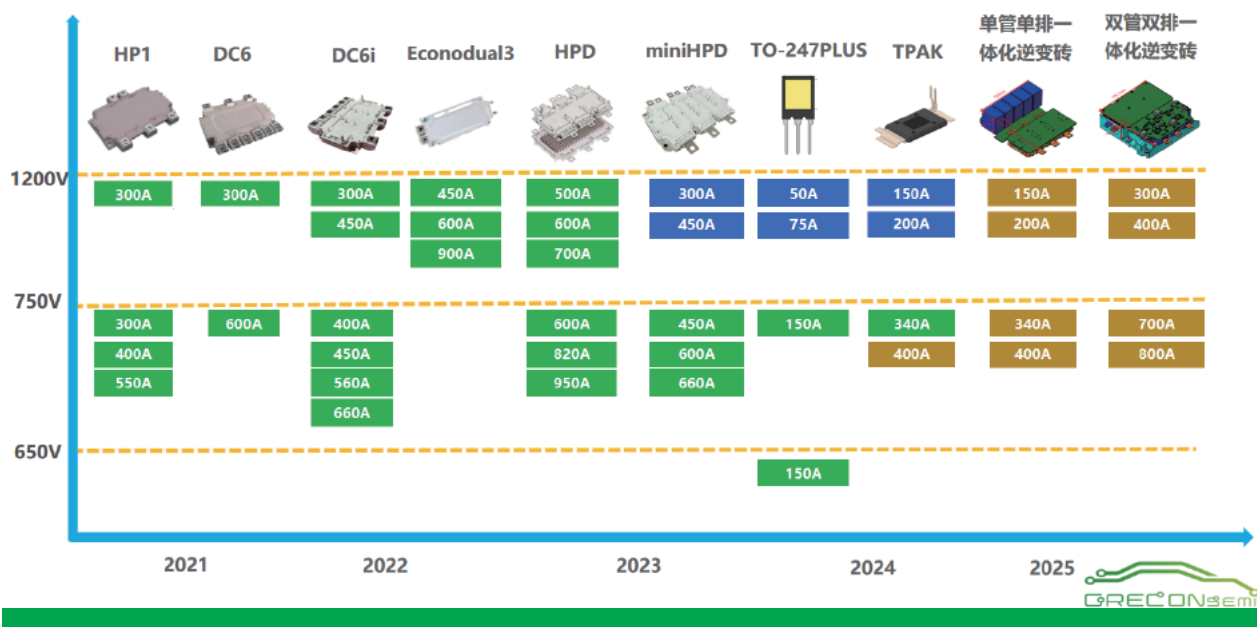
POWER DEVICE DESIGNATION RULES



汽车IGBT产品路线图

AUTOMOTIVE IGBT POWER MODULE ROADMAP

汽车IGBT产品路线图



< 选型表 > < SELECTION TABLE >

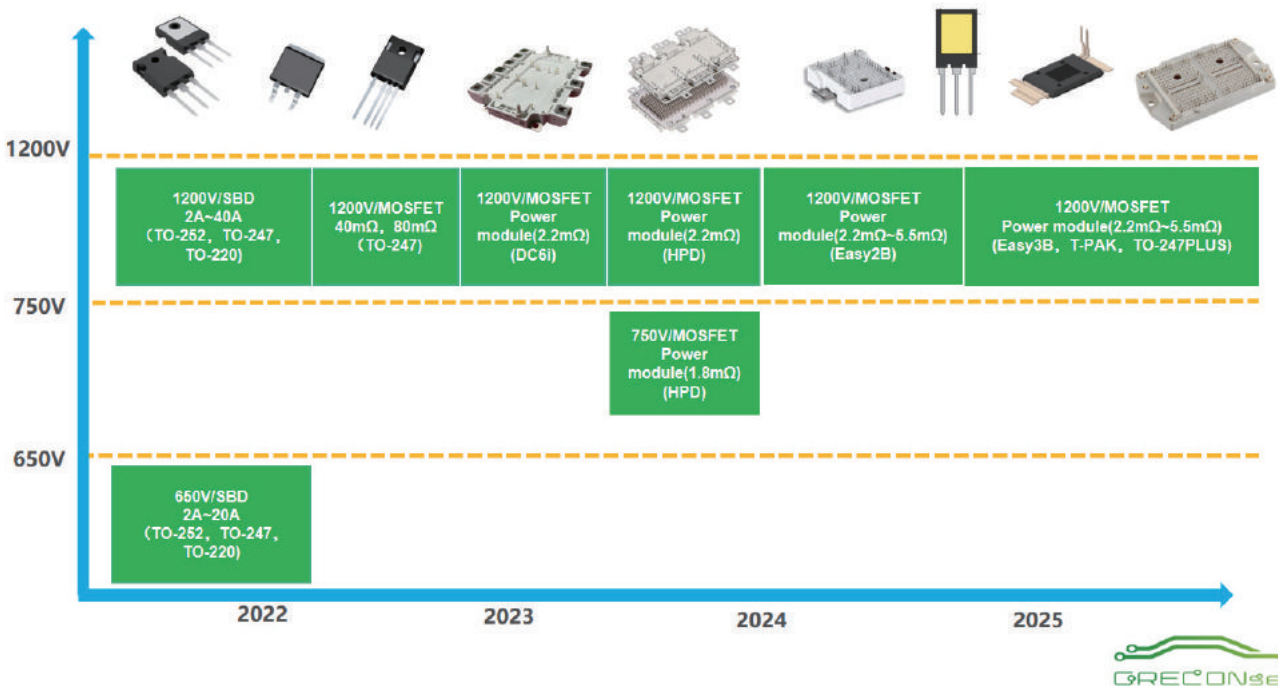
| 翠展产品型号 | 规格 | 封装 | 适应车型 | 母线电压(V) | 功率段 | 模块例图 |
|------------------|---------------|------------|-----------------------|--------------------|-------------|--------------------|
| Product Model | Specification | Package | Applicable Car Models | Battery Voltage(V) | Power Range | Example of Product |
| GCV300GX75FFH1 | 750V/300A | HP1 平板 | A00/轻卡 | 320V-490V | 25-35KW | |
| GCV400GX75FFH1 | 750V/400A | | A00/轻卡 | | 40-60KW | |
| GCV550GX75FFH1 | 750V/550A | | A00-A0/轻卡 | | 60-75KW | |
| GCV300GX120FFH1H | 1200V/300A | HP1 PINFIN | A00/轻卡 | 550V-800V | 90-110KW | |
| GCV600GX75FTH4H | 750V/600A | DC6 | A0/轻卡 | 320V-490V | 70-90KW | |
| GCV300GX120FTH4H | 1200V/300A | | A0/轻卡 | 550V-800V | 90-110KW | |
| GCV400GX75FTH5H | 750V/400A | DC6i | A00-A0/轻卡 | 320V-490V | 60-70KW | |
| GCV450GX75FTH5H | 750V/450A | | A00-A0/轻卡 | | 70-80KW | |
| GCV560GX75FTH5H | 750V/560A | | A00-A0/轻卡 | | 75-90KW | |
| GCV660GX75FTH5H | 750V/660A | | A0/轻卡 | | 90-110KW | |
| GCV300GX120FTH5H | 1200V/300A | | A0/轻卡 | | 550V-800V | |
| GCV450GX120FTH5H | 1200V/450A | | A0/轻卡 | | 90-110KW | |
| GCV400GX75FTH5N | 1200V/400A | DC6iN | A00-A0/轻卡 | 320V-490V | 60-70KW | |
| GCV450GX75FTH5N | 1200V/450A | | A00-A0/轻卡 | | 70-80KW | |

| 翠展产品型号 | 规格 | 封装 | 适应车型 | 母线电压(V) | 功率段 | 模块例图 |
|------------------|---------------|------------|-----------------------|--------------------|-------------|---|
| Product Model | Specification | Package | Applicable Car Models | Battery Voltage(V) | Power Range | Example of Product |
| GCV600GX75FTH3 | 750V/600A | HPD | A0-B/轻卡 | 320V-490V | 110K-120KW |  |
| GCV820GX75FTH3 | 750V/820A | | A0-C级车 | | 130-150KW | |
| GCV950GX75FTH3 | 750V/950A | | B-C级高端 | | 150-180KW | |
| GCV500GX120FTH3 | 1200V/500A | | A0-B/轻卡 | 550V-800V | 110K-120KW | |
| GCV600GX120FTH3 | 1200V/600A | | A0-B/轻卡 | | 130-150KW | |
| GCV400GX75FTH8T | 750V/400A | miniHPD | A00-A0/轻卡 | 320V-490V | 70-80KW |  |
| GCV550GX75FTH8T | 750V/550A | | A00-A0/轻卡 | | 70-80KW | |
| GCV660GX75FTH8T | 750V/660A | | A0-B/轻卡 | | 70-90KW | |
| GCV700GX75FTH8T | 750V/700A | | A0-B/轻卡 | 90-110KW | | |
| GCV300GX120FTH8T | 1200V/300A | | A0/轻卡 | 550V-800V | 90-110KW | |
| GCV450GX120FTH8T | 1200V/450A | | A0/轻卡 | | 90-130KW | |
| GCV200GX75FTH9T | 750V/200A | miniHP1 | A00-A0/轻卡 | 320V-490V | 25-35KW |  |
| GCV300GX75FTH9T | 750V/300A | | A00-A0/轻卡 | | 25-35KW | |
| GCV350GX75FTH9T | 750V/350A | | A00-A0/轻卡 | | 30-50KW | |
| GCV150GX120FTH9T | 1200V/150A | | A00-A0/轻卡 | 550V-800V | 35-55KW | |
| GCV200GX120FTH9T | 1200V/200A | | A00-A0/轻卡 | | 40-60KW | |
| GCV450GX120HBB3 | 1200V/450A | EconoDUAL3 | 物流车/商用车 | 550V-800V | 90-110KW |  |
| GCV600GX120HBB3 | 1200V/600A | | 物流车/商用车 | | 110-130KW | |
| GCV900GX120HBB3 | 1200V/900A | | 物流车/商用车 | | 150-200KW | |
| GCV150GX65SGT3 | 650V/150A | TO-247PLUS | A0-B/轻卡 | 320V-490V | 100KW |  |
| GCV160GX75SGT3 | 750V/160A | | A0-B/轻卡 | | 100KW | |
| GCV50GX120SGT3 | 1200V/50A | | A0-B/轻卡 | 550V-800V | 11KW | |
| GCV75GX120SGT3 | 1200V/75A | | A0-B/轻卡 | | 18.5KW | |
| GCV340GX75SGT4 | 750V/340A | TPAK | A0-B级高端 | 320V-490V | 180KW |  |
| GCV400GX75SGT4 | 750V/400A | | A0-C级高端 | | 200KW | |
| GCV150GX120SGT4 | 1200V/150A | | 商用车 | 550V-800V | 80-100KW | |
| GCV200GX120SGT4 | 1200V/200A | | 商用车 | | 80-110KW | |
| GCV400GX75SGT6 | 750V/600A | 一体化塑封 | A0-C级高端 | 320V-490V | 200-250KW |  |
| GCV800GX75SGT6 | 750V/1000A | | A0-C级高端 | | 200-250KW | |
| GCV300GX120SGT6 | 1200V/300A | | 商用车 | 550V-800V | 300-400KW | |
| GCV600GX120SGT6 | 1200V/600A | | 商用车 | | 300-400KW | |

SiC产品路线图

SIC PRODUCT ROADMAP

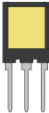

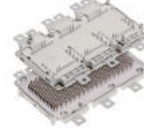

SiC产品路线图





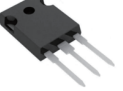

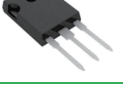

< 选型表 >

< SELECTION TABLE >

SiC MOSFET Module Products

| 翠展产品型号 Part Number | VDSS(V) | R _{DS(on)} (TYP) [mΩ] (@ 25°C) | I _D [A] (@ 25°C) | V _{GS(th)} [V] Min. / Max. | 封装形式 Package and Example of Product |
|-----------------------|---------|--|--------------------------------|--|---|
| GCV011MC120SGT3 | 1200 | 11 | 140 | 2.0/4.0 | TO-247PLUS  |
| GCV016MC120SGT3 | 1200 | 16 | 100 | 2.0/4.0 | |
| GCV5R5MC120SGT4 | 1200 | 5.5 | 200 | 2.0/4.0 | TPAK  |
| GCV2R8MC120SGT4 | 1200 | 2.8 | 400 | 2.0/4.0 | |
| GCV1R8MC120FTH3 | 1200 | 1.8 | 600 | 2.0/4.0 | HPD  |
| GCV1R4MC120FTH3 | 1200 | 1.4 | 800 | 2.0/4.0 | |
| GCV1R8MC120FTH5H | 1200 | 1.8 | 600 | 2.0/4.0 | DC6i  |

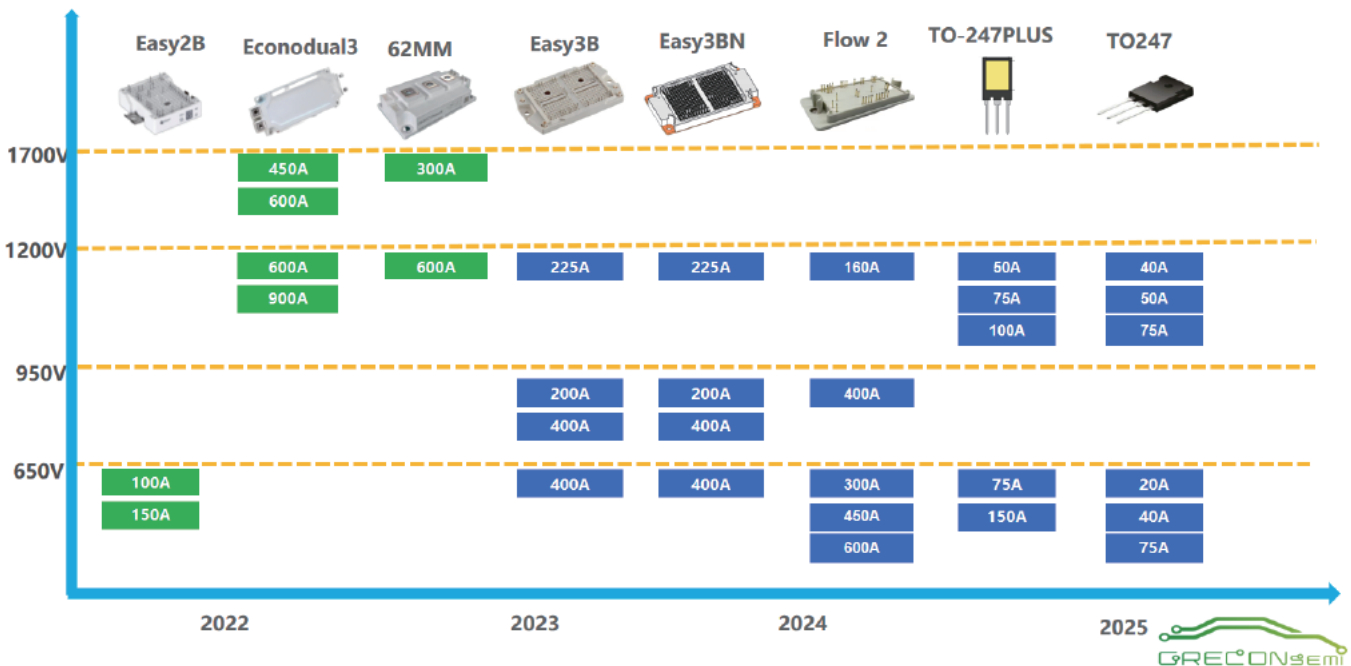
SiC MOSFET Discrete Products

| 翠展产品型号 Part Number | VDSS(V) | R _{DS(on)} (TYP) [mΩ] (@ 25°C) | I _D [A] (@ 25°C) | V _{GS(th)} [V] Min. / Max. | R _{thjc} (K/W) | 封装形式 Example of Product |
|-----------------------|---------|--|--------------------------------|--|-------------------------|---|
| GCV080MC120SGT1 | 1200 | 80 | 30 | 2.0/4.0 | 0.86 |  |
| GCV080MC120SGT1N | 1200 | 80 | 30 | 2.0/4.0 | 0.86 |  |
| GCV045MC120SGT1 | 1200 | 45 | 60 | 2.0/4.0 | 0.38 |  |
| GCV045MC120SGT1N | 1200 | 45 | 60 | 2.0/4.0 | 0.38 |  |
| GCV016MC120SGT1 | 1200 | 16 | 100 | 2.0/4.0 | 0.23 |  |
| GCV016MC120SGT1N | 1200 | 16 | 100 | 2.0/4.0 | 0.23 |  |

光储模块产品路线图

PV&PCS MODULE PRODUCT ROADMAP

光伏&储能产品路线图

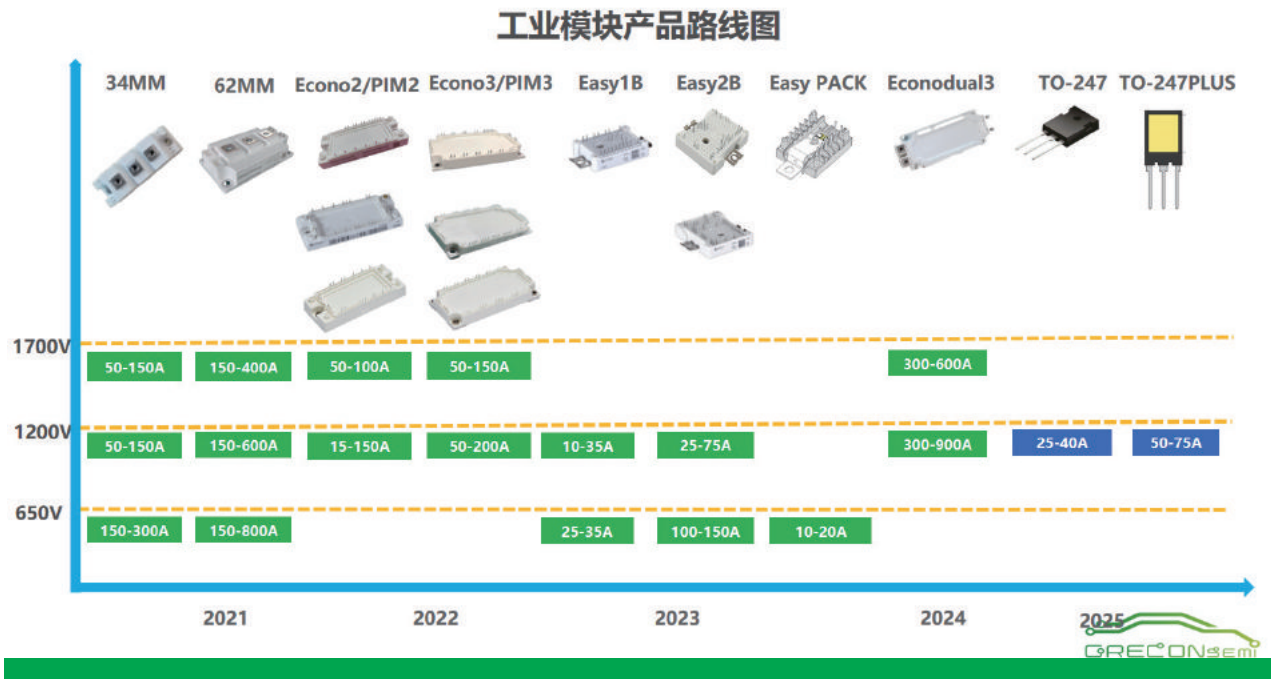


< 选型表 >
< SELECTION TABLE >

| 产品型号 | 规格 | 封装 | 封装例图 | 应用市场 |
|------------------|---------------|------------|--|---------------------------------------|
| Part Number | Specification | Package | Example of Product | Application Markets |
| GCP40GU65SGT1 | 650V/40A | TO-247 |  | 光伏逆变器 储能 DC/DC升压电路 高频电源光伏逆变器 |
| GCP50GU65SGT1 | 650V/50A | | | |
| GCP75GU65SGT1 | 650V/75A | | | |
| GCP40GU120SGT1 | 1200V/40A | | | |
| GCP100GU65SGT3 | 650V/100A | TO-247PLUS |  | |
| GCV160GU65SGT3 | 650V/160A | | | |
| GCP50GU120SGT3 | 1200V/50A | | | |
| GCP75GU120SGT3 | 1200V/75A | | | |
| GCP100GU120SGT3 | 1200V/100A | | | |
| GCP100GU65NPC2 | 650V/100A | Easy2B |  | |
| GCP150GU65NPC2 | 650V/150A | Easy3B |  | |
| GCP400GU75NPC3 | 750V/400A | | | |
| GCP200GU95NPC3 | 950V/200A | | | |
| GCP400GU95NPC3 | 950V/400A | Easy3BN |  | |
| GCP225GU120NPC3 | 1200V/225A | | | |
| GCP400GU65NPC3N | 650V/400A | | | |
| GCP400GU75NPC3N | 750V/400A | Easy3BN |  | |
| GCP200GU95NPC3N | 950V/200A | | | |
| GCP400GU95NPC3N | 950V/400A | | | |
| GCP225GU120NPC3N | 1200V/225A | | | |
| GCP300GU65NPC4 | 650V/300A | | | Flow2 |
| GCP450GU65NPC4 | 650V/450A | | | |
| GCP600GU65NPC4 | 650V/600A | | | |
| GCP160GU120NPC4 | 1200V/160A | | | |
| GCP450GU120HBA2 | 1200V/450A | 62mm |  | |
| GCP600GU120HBA2 | 1200V/600A | | | |
| GCP300GU170HBA2 | 1700V/300A | | | |
| GCP600GU120HBB3 | 1200V/600A | EconoDUAL3 |  | |
| GCP900GU120HBB3 | 1200V/900A | | | |
| GCP450GU170HBB3 | 1700V/450A | | | |
| GCP600GU170HBB3 | 1700V/600A | | | |

工业模块产品路线图

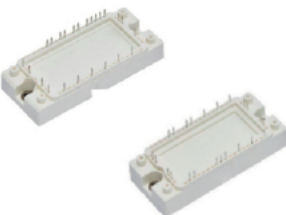






INDUSTRIAL MODULE PRODUCT ROADMAP



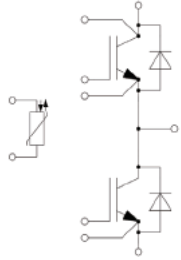
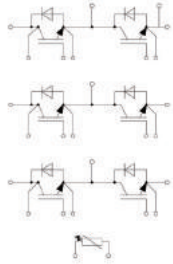
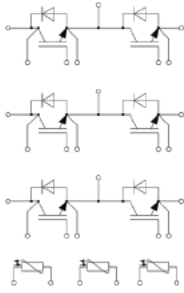
< 选型表 >

< SELECTION TABLE >

| 型号 | 规格 | 封装 | 封装例图 | 功率段 | 应用市场 |
|----------------|---------------|------------|--------------------|--------------|-----------------------|
| Part Number | Specification | Package | Example of Product | Power Range | Application Markets |
| GCP25GX120SGT1 | 1200V/25A | TO-247 | | 0.75KW-15KW | 变频器 伺服 光伏 空调 |
| GCP40GX120SGT1 | 1200V/40A | | | | |
| GCP50GX120SGT3 | 1200V/50A | TO-247PLUS | | | |
| GCP75GX120SGT3 | 1200V/75A | | | | |
| GCP10GX120PEC1 | 1200V/10A | Easy 1B | | 1.5KW-2.2KW | |
| GCP15GX120PEC1 | 1200V/15A | | | | |
| GCP25GX120PEC1 | 1200V/25A | | | | |
| GCP25GX120FTC1 | 1200V/25A | | | | |
| GCP35GX120FTC1 | 1200V/35A | | | | |
| GCP25GX65PEC1 | 650V/25A | | | | |
| GCP35GX65PEC1 | 650V/35A | | | | |
| GCP100GX65NPC2 | 650V/100A | | | | |
| GCP150GX65NPC2 | 650V/150A | | | | |
| GCP25GX120PEC2 | 1200V/25A | | | | |
| GCP35GX120PEC2 | 1200V/35A | Easy PACK | | 0.65KW-1.3KW | |
| GCP50GX120PEC2 | 1200V/50A | | | | |
| GCP40GX120FEC2 | 1200V/40A | | | | |
| GCP50GX120FEC2 | 1200V/50A | | | | |
| GCP75GX120FEC2 | 1200V/75A | | | | |
| GCP10GX65FTC5 | 650V/10A | | | | Easy PACK |
| GCP15GX65FTC5 | 650V/15A | | | | |
| GCP20GX65FTC5 | 650V/20A | | | | |

| 型号 | 规格 | 封装 | 封装例图 | 功率段 | 应用市场 | |
|------------------|---------------|-----------------|---|--|---|---|
| Part Number | Specification | Package | Example of Product | Power Range | Application Markets | |
| GCP15GX120PIB1 | 1200V/15A | PIM2 KT3 |  | 1.5KW-11KW | 变频器 伺服 光伏 空调 | |
| GCP25GX120PIB1 | 1200V/25A | | | | | |
| GCP40GX120PIB1 | 1200V/40A | | | | | |
| GCP50GX120PIB1 | 1200V/50A | | | | | |
| GCP25GX120PIB1N | 1200V/25A | PIM2 KT4 | | | | |
| GCP35GX120PIB1N | 1200V/35A | | | | | |
| GCP50GX120PIB1N | 1200V/50A | | | | | |
| GCP75GX120PIB1N | 1200V/75A | | | | | |
| GCP40GX120PIB2 | 1200V/40A | PIM3 KT3 |  | 11KW-37KW | | |
| GCP50GX120PIB2 | 1200V/50A | | | | | |
| GCP75GX120PIB2 | 1200V/75A | PIM3 KT4 | | | | |
| GCP50GX120PIB2N | 1200V/50A | | | | | |
| GCP75GX120PIB2N | 1200V/75A | | | | | |
| GCP100GX120PIB2N | 1200V/100A | | | | | |
| GCP150GX120PIB2N | 1200V/150A | Econo PACK2 |  | | | |
| GCP50GX120FFB1 | 1200V/50A | | | | | |
| GCP75GX120FFB1 | 1200V/75A | | | | | |
| GCP100GX120FFB1 | 1200V/100A | | | | | |
| GCP50GX170FFB1 | 1700V/50A | | | | | |
| GCP75GX170FFB1 | 1700V/75A | | | Econo PACK3 |  | |
| GCP100GX170FFB1 | 1700V/100A | | | | | |
| GCP75GX120FFB2 | 1200V/75A | | | | | |
| GCP100GX120FFB2 | 1200V/100A | | | | | |
| GCP150GX120FFB2 | 1200V/150A | | | | | |
| GCP200GX120FFB2 | 1200V/200A | | | | | |
| GCP50GX170FFB2 | 1700V/50A | 34mm |  | 变频器 伺服 光伏 UPS SVG 电控 电焊机 工业电源 | | |
| GCP75GX170FFB2 | 1700V/75A | | | | | |
| GCP100GX170FFB2 | 1700V/100A | | | | | |
| GCP150GX170FFB2 | 1700V/150A | | | | | |
| GCP150GX65HBA1 | 650V/150A | | | | 62mm |  |
| GCP200GX65HBA1 | 650V/200A | | | | | |
| GCP300GX65HBA1 | 650V/300A | | | | | |
| GCP50GX120HBA1 | 1200V/50A | | | | | |
| GCP75GX120HBA1 | 1200V/75A | | | | | |
| GCP100GX120HBA1 | 1200V/100A | | | | | |
| GCP150GX120HBA1 | 1200V/150A | EconoDUAL3 |  | | | |
| GCP50GX170HBA1 | 1700V/50A | | | | | |
| GCP75GX170HBA1 | 1700V/75A | | | | | |
| GCP100GX170HBA1 | 1700V/100A | | | | | |
| GCP150GX170HBA1 | 1700V/150A | | | | | |
| GCP150GX120HBA2 | 1200V/150A | | | | | |
| GCP200GX120HBA2 | 1200V/200A | GCV225GX120HBB3 | 1200V/225A | | | |
| GCP300GX120HBA2 | 1200V/300A | | | | | |
| GCP450GX120HBA2 | 1200V/450A | | | | | |
| GCP150GX170HBA2 | 1700V/150A | | | | | |
| GCP200GX170HBA2 | 1700V/200A | | | | | |
| GCP300GX170HBA2 | 1700V/300A | | | | | |
| GCP400GX170HBA2 | 1700V/400A | GCV300GX120HBB3 | 1200V/300A | | | |
| GCV225GX120HBB3 | 1200V/225A | | | | | |
| GCV300GX120HBB3 | 1200V/300A | | | | | |
| GCV450GX120HBB3 | 1200V/450A | | | | | |
| GCV600GX120HBB3 | 1200V/600A | | | | | |
| GCV900GX120HBB3 | 1200V/900A | | | | | |
| GCV300GX170HBB3 | 1700V/300A | GCV450GX170HBB3 | 1700V/450A | | | |
| GCV450GX170HBB3 | 1700V/450A | | | | | |
| GCV600GX170HBB3 | 1700V/600A | | | | | |

| Type | V _{CES} V | I _C A | V _{CE(sat)} @ T _j =25°C typ.V | (E _{on} +E _{off}) @ T _j =125°C typ.m J | R _{th(J-C)} K/W | Package Outline | Circuit |
|-------------------------------------|-----------------------|---------------------|---|--|-----------------------------|--------------------|---------|
| 750V 3 Phase Bridge with NTC | | | | | | | |
| Trench FS IGBT, Low Loss | | | | | | | |
| GCV300GX75FFH 1 | 750 | 300 | 1.51 | 22.7 | 0.13 | H 1.0 | |
| GCV400GX75FFH 1 | 750 | 400 | 1.53 | 36.4 | 0.1 | H 1.0 | |
| GCV550GX75FFH 1 | 750 | 550 | 1.6 | 41.1 | 0.075 | H 1.0 | |
| GCV300GX75FFH 1H | 750 | 300 | 1.5 | 24.7 | 0.13 | H 1.1 | |
| GCV400GX75FFH 1H | 750 | 400 | 1.55 | 26.4 | 0.1 | H 1.1 | |
| GCV600GX75FFH 1H | 750 | 600 | 1.6 | 41.7 | 0.068 | H 1.1 | |
| GCV660GX75FFH 1H | 750 | 660 | 1.62 | 45 | 0.063 | H 1.1 | |
| GCV300GX75FTH 4H | 750 | 300 | 1.5 | 31.7 | 0.13 | H 4.0 | |
| GCV600GX75FTH 4H | 750 | 600 | 1.6 | 46.7 | 0.068 | H 4.0 | |
| GCV660GX75FTH 4H | 750 | 660 | 1.65 | 49 | 0.063 | H 4.0 | |
| GCV300GX75FTH 5H | 750 | 300 | 1.51 | 25.7 | 0.13 | H 5.0 | |
| GCV400GX75FTH 5H | 750 | 400 | 1.55 | 31.4 | 0.1 | H 5.0 | |
| GCV450GX75FTH 5H | 750 | 450 | 1.56 | 35 | 0.18 | H 5.0 | |
| GCV560GX75FTH 5H | 750 | 560 | 1.55 | 55.1 | 0.075 | H 5.0 | |
| GCV660GX75FTH 5H | 750 | 660 | 1.56 | 52 | 0.063 | H 5.0 | |
| GCV400GX75FTH 5N | 750 | 400 | 1.5 | 46.4 | 0.1 | H 5.1 | |
| GCV450GX75FTH 5N | 750 | 450 | 1.53 | 48 | 0.08 | H 5.1 | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| Trench FS IGBT, Low Loss | | | | | | | |
| GCV600GX75FTH 2 | 750 | 600 | 1.65 | 52.7 | 0.157 | H 2.0 | |
| GCV800GX75FTH 2 | 750 | 800 | 1.75 | 48 | 0.121 | H 2.0 | |
| GCV400GX75FTH 3 | 750 | 400 | 1.60 | 56.4 | 0.19 | H 3.0 | |
| GCV600GX75FTH 3 | 750 | 600 | 1.65 | 49 | 0.17 | H 3.0 | |
| GCV660GX75FTH 3 | 750 | 660 | 1.68 | 55 | 0.12 | H 3.0 | |
| GCV820GX75FTH 3T | 750 | 820 | 1.55 | 45 | 0.08 | H 3.0 | |
| GCV950GX75FTH 3T | 750 | 950 | 1.58 | 53 | 0.06 | H 3.0 | |
| GCV400GX75FTH 8T | 750 | 450 | 1.51 | 45 | 0.13 | H 8.0 | |
| GCV600GX75FTH 8T | 750 | 600 | 1.56 | 52 | 0.073 | H 8.0 | |
| GCV660GX75FTH 8T | 750 | 660 | 1.58 | 50 | 0.062 | H 8.0 | |

| Type | V _{CES} V | I _C A | V _{CE (sat)} @ T _j =25°C typ.V | (E _{on} +E _{off}) @ T _j =125°C typ.m J | R _{th (J-C)} K/W | Package Outline | Circuit |
|--------------------------------------|-----------------------|---------------------|--|--|------------------------------|--------------------|---|
| 1200V Half Bridge | | | | | | |  |
| Trench FS IGBT, Low Loss | | | | | | | |
| GCV150GX120HBB3 | 1200 | 150 | 1.8 | 62.5 | 0.136 | B3.0 | |
| GCV225GX120HBB3 | 1200 | 225 | 1.8 | 62.5 | 0.122 | B3.0 | |
| GCV300GX120HBB3 | 1200 | 300 | 2 | 68.5 | 0.0993 | B3.0 | |
| GCV450GX120HBB3 | 1200 | 450 | 1.85 | 119.1 | 0.069 | B3.0 | |
| GCV600GX120HBB3 | 1200 | 600 | 2 | 135.5 | 0.038 | B3.0 | |
| GCV900GX120HBB3 | 1200 | 900 | 1.79 | 328.5 | 0.021 | B3.0 | |
| 1200V 3 Phase Bridge with NTC | | | | | | |  |
| Trench FS IGBT, Low Loss | | | | | | | |
| GCV300GX120FFH1H | 1200 | 300 | 1.45 | 36.4 | 0.13 | H1.1 | |
| GCV300GX120FTH4H | 1200 | 300 | 1.45 | 38.3 | 0.1 | H4.0 | |
| GCV300GX120FTH5H | 1200 | 300 | 1.46 | 31.7 | 0.068 | H5.0 | |
| GCV450GX120FTH5H | 1200 | 450 | 1.50 | 39.1 | 0.063 | H5.0 | |
| 1200V Tri-Pack | | | | | | |  |
| Trench FS IGBT, Low Loss | | | | | | | |
| GCV400GX120FTH2 | 1200 | 400 | 1.6 | 46.4 | 0.115 | H2.0 | |
| GCV400GX120FTH3 | 1200 | 400 | 1.6 | 50.8 | 0.102 | H3.0 | |
| GCV500GX120FTH3 | 1200 | 500 | 1.55 | 55.6 | 0.085 | H3.0 | |
| GCV600GX120FTH3 | 1200 | 600 | 1.6 | 60 | 0.064 | H3.0 | |
| GCV300GX120FTH8T | 1200 | 300 | 1.46 | 46.3 | 0.102 | H8.0 | |
| GCV450X120FTH8T | 1200 | 450 | 1.5 | 53.8 | 0.096 | H8.0 | |

IGBT汽车模块选型表

AUTOMOTIVE IGBTMODULES SELECTION TABLE

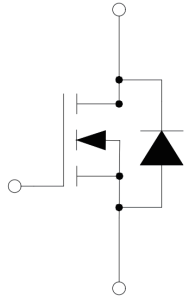
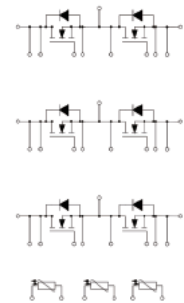
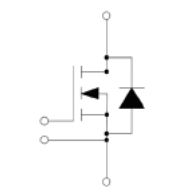
IGBT单管选型表

DISCRETES IGBT SELECTION TABLE

| Type | VCES V | IC A | VCE (sat) @ Tj=25°C typ.V | (Eon+Eoff) @ Tj=125°C typ.mJ | Rth (J-C) K/W | Package Outline | Circuit |
|--|-----------|---------|---------------------------------|------------------------------------|------------------|--------------------|---------|
| 650V/750V/1200V IGBT and Diode | | | | | | | |
| Trench FS IGBT, Low loss | | | | | | | |
| GCP40GU65SGT1 | 650 | 40 | 1.6 | 10.44 | 0.7 | T1.0 | |
| GCP50GU65SGT1 | 650 | 50 | 1.65 | 10.8 | 0.46 | T1.0 | |
| GCP75GU65SGT1 | 650 | 75 | 1.67 | 11.25 | 0.32 | T1.0 | |
| GCP40GU120SGT1 | 1200 | 40 | 1.62 | 10.44 | 0.7 | T1.0 | |
| GCP100GU65SGT3 | 650 | 100 | 1.66 | 20.73 | 0.22 | T3.0 | |
| GCV160GU65SGT3 | 650 | 160 | 1.63 | 25.25 | 0.15 | T3.0 | |
| GCP25GU120SGT3 | 1200 | 25 | 1.62 | 6.3 | 0.9 | T3.0 | |
| GCP40GU120SGT3 | 1200 | 40 | 1.6 | 7.44 | 0.7 | T3.0 | |
| GCP50GU120SGT3 | 1200 | 50 | 1.65 | 6.8 | 0.46 | T3.0 | |
| GCP75GU120SGT3 | 1200 | 75 | 1.67 | 8.25 | 0.32 | T3.0 | |
| GCP100GU120SGT3 | 1200 | 100 | 1.66 | 20.52 | 0.3 | T3.0 | |
| 1200V IGBT and Diode | | | | | | | |
| Trench FS Ultra Fast IGBT, Low loss | | | | | | | |
| GCP25GU120SGT3 | 1200 | 25 | 1.60 | 7.3 | 0.9 | T3.0 | |
| 750V/1200V IGBT and Diode | | | | | | | |
| Trench FS IGBT, Low loss | | | | | | | |
| GCV340GX75SGT4 | 750 | 340 | 1.51 | 26.5 | 0.088 | T4.0 | |
| GCV400GX75SGT4 | 750 | 400 | 1.63 | 33.3 | 0.074 | T4.0 | |
| GCV150GX120SGT4 | 1200 | 150 | 1.46 | 20.86 | 0.28 | T4.0 | |
| GCV200GX120SGT4 | 1200 | 200 | 1.5 | 24.43 | 0.24 | T4.0 | |

SiC选型表

SIC MOSEFT PRODYCT SELECTION TABLE

| Type | V CES V | I C A | RDS(on) @ T j=25°C m ax. m Ohm | R th (J-C) K/W | Package Outline | Circu it |
|---------------------------------------|------------|----------|---|-------------------|--------------------|---|
| 1200V Single | | | | | |  |
| GCV080M C120SGT1 | 1200 | 30 | 80 | 0.86 | T1.0 | |
| GCV045M C120SGT1 | 1200 | 60 | 45 | 0.38 | T1.0 | |
| GCV016M C120SGT1 | 1200 | 100 | 16 | 0.23 | T1.0 | |
| GCV080M C120SGT1N | 1200 | 30 | 80 | 0.86 | T1.1 | |
| GCV045M C120SGT1N | 1200 | 60 | 45 | 0.38 | T1.1 | |
| GCV016M C120SGT1N | 1200 | 100 | 16 | 0.23 | T1.1 | |
| 1200V 3 Phase Bridge w ith NTC | | | | | |  |
| GCV1R8M C120FTH3 | 1200 | 600 | 1.8 | 0.125 | H3.1 | |
| GCV1R4M C120FTH3 | 1200 | 800 | 1.4 | 0.094 | H3.1 | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| GCV1R8M C120FTH5H | 1200 | 600 | 1.8 | 0.125 | H5.0 | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| GCV5R5M C120SGT4 | 1200 | 200 | 5.5 | 0.154 | T4.0 |  |
| GCV2R8M C120SGT4 | 1200 | 400 | 2.8 | 0.134 | T4.0 | |
| | | | | | | |
| | | | | | | |

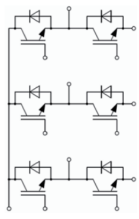
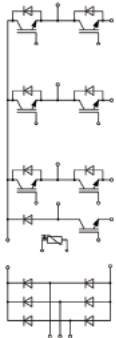
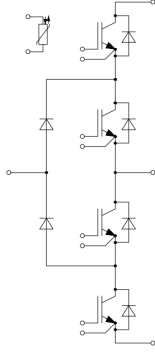
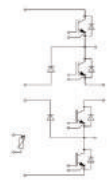
IGBT工业模块选型表

INDUSTRIAL GBTMODULES SELECTION TABLE

| Type | V _{CES} V | I _C A | V _{CE(sat)} @ T _j =25°C typ.V | (E _{on} +E _{off}) @ T _j =125°C typ.m J | R _{th} (J-C) K/W | Package Outline | Circuit |
|---------------------------------|-----------------------|---------------------|---|--|------------------------------|--------------------|---------|
| 1200V Boost Chopper | | | | | | | |
| Trench FS IGBT, Low loss | | | | | | | |
| GCP100GX120CUA1 | 1200 | 100 | 1.50 | 22.7 | 0.512 | A1.0 | |
| GCP150GX120CUA1 | 1200 | 150 | 1.53 | 24.4 | 0.394 | A1.0 | |
| GCP100GX120CUA2 | 1200 | 100 | 1.5 | 38.5 | 0.278 | A2.0 | |
| GCP150GX120CUA2 | 1200 | 150 | 1.53 | 36.1 | 0.203 | A2.0 | |
| GCP200GX120CUA2 | 1200 | 200 | 1.58 | 36.8 | 0.143 | A2.0 | |
| GCP300GX120CUA2 | 1200 | 300 | 1.65 | 57.1 | 0.093 | A2.0 | |
| GCP400GX120CUA2 | 1200 | 400 | 1.68 | 66.8 | 0.072 | A2.0 | |
| GCP450GX120CUA2 | 1200 | 450 | 1.70 | 69.8 | 0.063 | A2.0 | |
| GCP600GX120CUA2 | 1200 | 600 | 1.75 | 78.8 | 0.040 | A2.0 | |
| 1200V Buck Chopper | | | | | | | |
| Trench FS IGBT, Low loss | | | | | | | |
| GCP100GX120CLA1 | 1200 | 100 | 1.65 | 22.7 | 0.512 | A1.0 | |
| GCP150GX120CLA1 | 1200 | 150 | 1.67 | 24.4 | 0.394 | A1.0 | |
| GCP100GX120CLA2 | 1200 | 100 | 1.65 | 35.5 | 0.278 | A2.0 | |
| GCP150GX120CLA2 | 1200 | 150 | 1.66 | 36.1 | 0.203 | A2.0 | |
| GCP200GX120CLA2 | 1200 | 200 | 1.70 | 39.8 | 0.143 | A2.0 | |
| GCP300GX120CLA2 | 1200 | 300 | 1.72 | 47.1 | 0.093 | A2.0 | |
| GCP400GX120CLA2 | 1200 | 400 | 1.75 | 53.8 | 0.072 | A2.0 | |
| GCP450GX120CLA2 | 1200 | 450 | 1.76 | 61.8 | 0.063 | A2.0 | |
| GCP600GX120CLA2 | 1200 | 600 | 1.78 | 72.8 | 0.040 | A2.0 | |
| 1200V Half Bridge | | | | | | | |
| Trench FS IGBT, Low loss | | | | | | | |
| GCP50GX120HBA1 | 1200 | 50 | 1.50 | 12.7 | 0.512 | A1.0 | |
| GCP75GX120HBA1 | 1200 | 75 | 1.65 | 13.6 | 0.394 | A1.0 | |
| GCP100GX120HBA1 | 1200 | 100 | 1.75 | 14.2 | 0.278 | A1.0 | |
| GCP150GX120HBA1 | 1200 | 150 | 2.1 | 37.5 | 0.203 | A1.0 | |
| GCP100GX120HBA2 | 1200 | 100 | 1.75 | 13.5 | 0.278 | A2.0 | |
| GCP150GX120HBA2 | 1200 | 150 | 1.95 | 35.5 | 0.203 | A2.0 | |
| GCP200GX120HBA2 | 1200 | 200 | 1.65 | 40.5 | 0.143 | A2.0 | |
| GCP300GX120HBA2 | 1200 | 300 | 1.8 | 47.5 | 0.093 | A2.0 | |
| GCP400GX120HBA2 | 1200 | 400 | 1.65 | 62.1 | 0.072 | A2.0 | |
| GCP600GX120HBA2 | 1200 | 600 | 1.65 | 13.6 | 0.040 | A2.0 | |
| 1700V Half Bridge | | | | | | | |
| Trench FS IGBT, Low loss | | | | | | | |

| Type | V _{CES} V | I _C A | V _{CE (sat)} @ T _j =25°C typ.V | (E _{on} +E _{off}) @ T _j =125°C typ.m J | R _{th (J-C)} K/W | Package Outline | Circuit | |
|---|-----------------------|---------------------|--|--|------------------------------|--------------------|---------|--|
| GCP50GX170FFB1 | 1700 | 50 | 2.09 | 40.8 | 0.512 | B1.2 | | |
| GCP75GX170FFB1 | 1700 | 75 | 1.70 | 14.4 | 0.394 | B1.2 | | |
| GCP100GX170FFB1 | 1700 | 100 | 1.70 | 18.5 | 0.293 | B1.2 | | |
| GCP50GX170FFB2 | 1700 | 50 | 1.70 | 12.7 | 0.512 | B2.2 | | |
| GCP75GX170FFB2 | 1700 | 75 | 1.70 | 14.4 | 0.394 | B2.2 | | |
| GCP100GX170FFB2 | 1700 | 100 | 2.06 | 55.9 | 0.293 | B2.2 | | |
| GCP150GX170FFB2 | 1700 | 150 | 1.70 | 26.1 | 0.170 | B2.2 | | |
| 1200V PM | | | | | | | | |
| Trench FS IGBT, Low loss | | | | | | | | |
| GCP10GX120P1B1 | 1200 | 10 | 1.70 | 2.3 | 1.279 | B1.0 | | |
| GCP15GX120P1B1 | 1200 | 15 | 1.61 | 3.6 | 0.904 | B1.0 | | |
| GCP25GX120P1B1 | 1200 | 25 | 1.62 | 4.2 | 0.728 | B1.0 | | |
| GCP40GX120P1B1 | 1200 | 40 | 1.65 | 8.8 | 0.535 | B1.0 | | |
| GCP50GX120P1B1 | 1200 | 50 | 1.7 | 10.9 | 0.416 | B1.0 | | |
| GCP25GX120P1B1N | 1200 | 25 | 1.62 | 4.2 | 0.728 | B1.1 | | |
| GCP35GX120P1B1N | 1200 | 35 | 1.62 | 9.25 | 0.569 | B1.1 | | |
| GCP50GX120P1B1N | 1200 | 50 | 1.84 | 11.6 | 0.512 | B1.1 | | |
| GCP75GX120P1B1N | 1200 | 75 | 1.94 | 14.8 | 0.394 | B1.1 | | |
| GCP40GX120P1B2 | 1200 | 40 | 1.62 | 10.6 | 0.535 | B2.0 | | |
| GCP50GX120P1B2 | 1200 | 50 | 1.67 | 12 | 0.512 | B2.0 | | |
| GCP75GX120P1B2 | 1200 | 75 | 1.6 | 18 | 0.394 | B2.0 | | |
| GCP50GX120P1B2N | 1200 | 50 | 1.72 | 11.4 | 0.512 | B2.1 | | |
| GCP75GX120P1B2N | 1200 | 75 | 1.69 | 13.7 | 0.394 | B2.1 | | |
| GCP100GX120P1B2N | 1200 | 100 | 1.73 | 17.3 | 0.293 | B2.1 | | |
| GCP150GX120P1B2N | 1200 | 150 | 1.95 | 38 | 0.170 | B2.1 | | |
| 1200V 3 Phase Rectifier+3 Phase Output | | | | | | | | |
| Trench FS IGBT, Low loss | | | | | | | | |
| GCP15GX120PGB1 | 1200 | 15 | 1.61 | 3.6 | 0.904 | B1.0 | | |
| GCP25GX120PGB1 | 1200 | 25 | 1.62 | 4.2 | 0.728 | B1.0 | | |
| GCP35GX120PGB1N | 1200 | 35 | 1.62 | 9.3 | 0.569 | B1.1 | | |
| GCP50GX120PGB1N | 1200 | 50 | 1.75 | 11.3 | 0.512 | B1.1 | | |
| GCP40GX120PGB2 | 1200 | 40 | 1.62 | 10.6 | 0.535 | B2.0 | | |
| GCP50GX120PGB2 | 1200 | 50 | 1.67 | 12 | 0.512 | B2.0 | | |
| GCP75GX120PGB2 | 1200 | 75 | 1.7 | 8.6 | 0.394 | B2.0 | | |
| GCP50GX120PGB2N | 1200 | 50 | 1.75 | 12.5 | 0.512 | B2.1 | | |
| GCP75GX120PGB2N | 1200 | 75 | 1.69 | 16.1 | 0.394 | B2.1 | | |
| GCP100GX120PGB2N | 1200 | 100 | 1.74 | 24.6 | 0.293 | B2.1 | | |
| GCP150GX120PGB2N | 1200 | 150 | 2 | 36.5 | 0.170 | B2.1 | | |

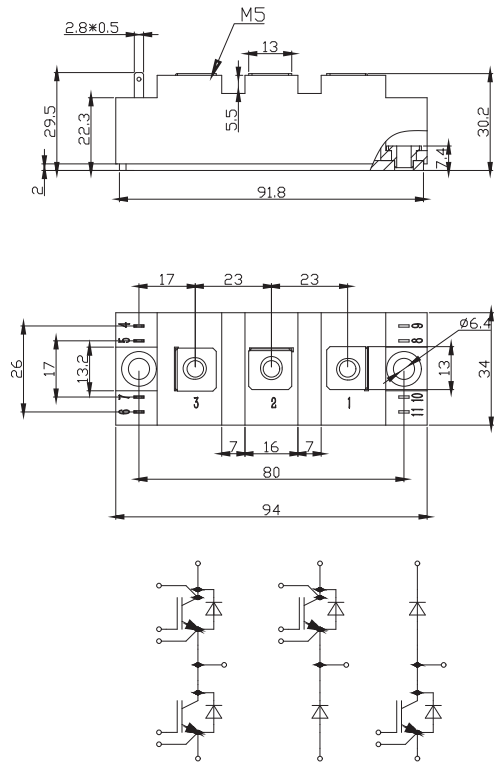
| Type | VCES V | IC A | VCE (sat) @ Tj=25°C typ.V | (Eon+Eoff) @ Tj=125°C typ.m J | Rth (T-C) K/W | Package Outline | Circuit |
|---|-----------|---------|---------------------------------|-------------------------------------|------------------|--------------------|---------|
| 1200V 3 Phase Rectifier+Brake FRD+3 Phase Output | | | | | | | |
| Trench FS IGBT, Low loss | | | | | | | |
| GCP15GX120PAB1 | 1200 | 15 | 1.60 | 4.1 | 0.904 | B1.0 | |
| GCP25GX120PAB1 | 1200 | 25 | 1.62 | 6.8 | 0.728 | B1.0 | |
| GCP35GX120PAB1N | 1200 | 35 | 1.65 | 7.1 | 0.569 | B1.1 | |
| GCP50GX120PAB1N | 1200 | 50 | 1.68 | 15.7 | 0.512 | B1.1 | |
| GCP40GX120PAB2 | 1200 | 40 | 1.65 | 10.8 | 0.535 | B2.0 | |
| GCP50GX120PAB2 | 1200 | 50 | 1.68 | 14.7 | 0.512 | B2.0 | |
| GCP75GX120PAB2 | 1200 | 75 | 1.68 | 15.4 | 0.394 | B2.0 | |
| GCP50GX120PAB2N | 1200 | 50 | 1.68 | 13.7 | 0.512 | B2.1 | |
| GCP75GX120PAB2N | 1200 | 75 | 1.70 | 15.4 | 0.394 | B2.1 | |
| GCP100GX120PAB2N | 1200 | 100 | 1.74 | 24.6 | 0.293 | B2.1 | |
| 1200V Half Bridge | | | | | | | |
| Trench FS IGBT, Low Loss | | | | | | | |
| GCV150GX120HBB3 | 1200 | 150 | 1.70 | 26.1 | 0.136 | B3.0 | |
| GCV225GX120HBB3 | 1200 | 225 | 1.8 | 62.5 | 0.122 | B3.0 | |
| GCV300GX120HBB3 | 1200 | 300 | 2 | 68.5 | 0.093 | B3.0 | |
| GCV450GX120HBB3 | 1200 | 450 | 1.85 | 119.1 | 0.069 | B3.0 | |
| GCV600GX120HBB3 | 1200 | 600 | 2 | 135.5 | 0.038 | B3.0 | |
| GCV900GX120HBB3 | 1200 | 900 | 1.79 | 328.5 | 0.025 | B3.0 | |
| Trench FS Fast IGBT | | | | | | | |
| GCV150GH120HBB3 | 1200 | 150 | 1.65 | 23.7 | 0.106 | B3.0 | |
| GCV225GH120HBB3 | 1200 | 225 | 1.65 | 43 | 0.078 | B3.0 | |
| GCV300GH120HBB3 | 1200 | 300 | 1.73 | 48.7 | 0.066 | B3.0 | |
| 1700V Half Bridge | | | | | | | |
| Trench FS IGBT, Low Loss | | | | | | | |
| GCV300GX170HBB3 | 1700 | 300 | 1.72 | 67.6 | 0.093 | B3.0 | |
| GCV450GX170HBB3 | 1700 | 450 | 1.76 | 121.5 | 0.069 | B3.0 | |
| GCV600GX170HBB3 | 1700 | 600 | 1.83 | 145.2 | 0.038 | B3.0 | |
| 1200V 3 Phase Bridge with NTC | | | | | | | |
| Trench FS IGBT, Low loss | | | | | | | |
| GCP25GX120FEC1 | 1200 | 25 | 1.65 | 4.78 | 0.710 | C1.1 | |
| GCP35GX120FEC1 | 1200 | 35 | 1.66 | 6.09 | 0.552 | C1.1 | |
| GCP50GX120FEC2 | 1200 | 50 | 1.65 | 9.1 | 0.449 | C2.1 | |
| GCP75GX120FEC2 | 1200 | 75 | 1.68 | 14.2 | 0.292 | C2.1 | |

| Type | VCES V | IC A | VCE (sat) @ Tj=25°C typ.V | (Eon+Eoff) @ Tj=125°C typ.m J | Rth (J-C) K/W | Package Outline | Circuit |
|----------------------------------|-----------|---------|---------------------------------|-------------------------------------|------------------|--------------------|---|
| 650V 3 Phase Bridge | | | | | | |  |
| Trench FS IGBT, Low loss | | | | | | | |
| GCP10GX65FTC5 | 650 | 10 | 1.70 | 3.56 | 0.65 | C5.0 | |
| GCP15GX65FTC5 | 650 | 15 | 1.8 | 0.95 | 0.57 | C5.0 | |
| GCP20GX65FTC5 | 650 | 20 | 1.85 | 1 | 0.41 | C5.0 | |
| 1200V PM | | | | | | |  |
| Trench FS IGBT, Low loss | | | | | | | |
| GCP10GX120PEC1 | 1200 | 10 | 1.75 | 3.62 | 1.200 | C1.0 | |
| GCP15GX120PEC1 | 1200 | 15 | 1.7 | 3.7 | 1.020 | C1.0 | |
| GCP25GX120PEC1 | 1200 | 25 | 1.58 | 4.9 | 0.926 | C1.0 | |
| GCP25GX120PEC2 | 1200 | 25 | 1.65 | 6.5 | 0.710 | C2.0 | |
| GCP35GX120PEC2 | 1200 | 35 | 1.55 | 8.6 | 0.552 | C2.0 | |
| 650V/750V/950V/1200V NPC1 | | | | | | |  |
| Trench FS IGBT, Low loss | | | | | | | |
| GCP100GU65NPC2 | 650 | 100 | 1.60 | 12.4 | 0.302 | C2.1 | |
| GCP150GU65NPC2 | 650 | 150 | 1.63 | 15.14 | 0.285 | C2.1 | |
| GCP400GU75NPC3 | 750 | 400 | 1.75 | 32.68 | 0.263 | C3.0 | |
| GCP200GU95NPC3 | 950 | 200 | 1.66 | 31.8 | 0.248 | C3.0 | |
| GCP400GU95NPC3 | 950 | 400 | 1.74 | 45.5 | 0.224 | C3.0 | |
| GCP225GU120NPC3 | 1200 | 225 | 1.75 | 58.6 | 0.201 | C3.0 | |
| GCP400GU75NPC3N | 750 | 400 | 1.77 | 47.68 | 0.263 | C3.1 | |
| GCP200GU95NPC3N | 950 | 200 | 1.76 | 26.8 | 0.248 | C3.1 | |
| GCP400GU95NPC3N | 950 | 400 | 1.75 | 45.5 | 0.224 | C3.1 | |
| GCP225GU120NPC3N | 1200 | 225 | 1.74 | 38.6 | 0.207 | C3.1 | |
| GCP300GU65NPC4 | 650 | 300 | 1.76 | 45.2 | 0.27 | C4.0 |  |
| GCP450GU65NPC4 | 650 | 450 | 1.81 | 52.3 | 0.25 | C4.0 | |
| GCP600GU65NPC4 | 650 | 600 | 1.88 | 66.7 | 0.231 | C4.0 | |
| GCP160GU120NPC4 | 1200 | 160 | 1.74 | 28.1 | 0.203 | C4.0 | |

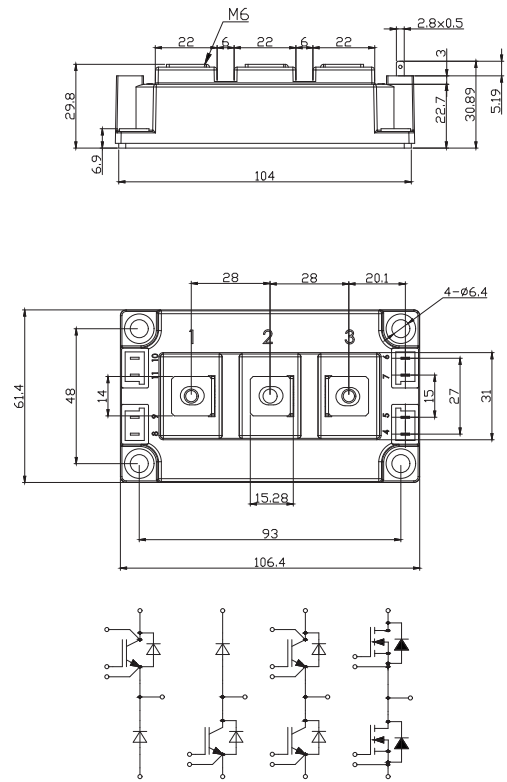
IGBT工业模块选型表

INDUSTRIAL IGBT MODULES SELECTION TABLE

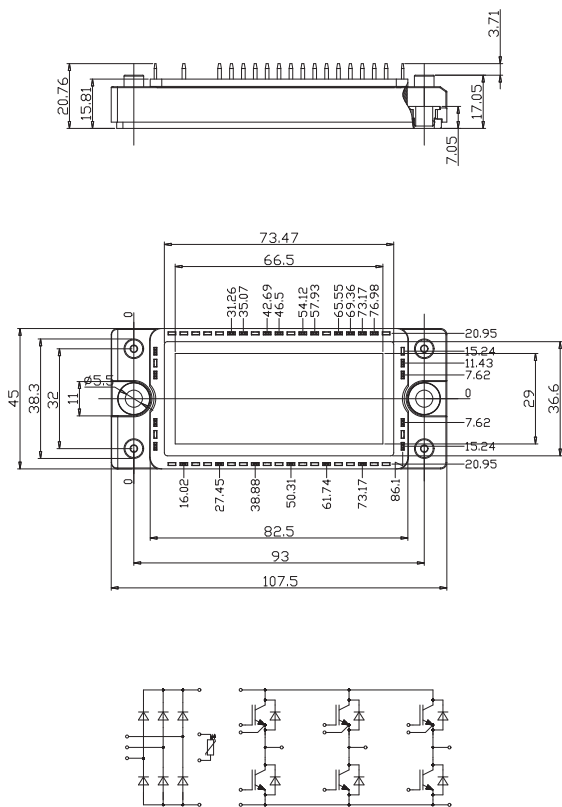
Case A1.0



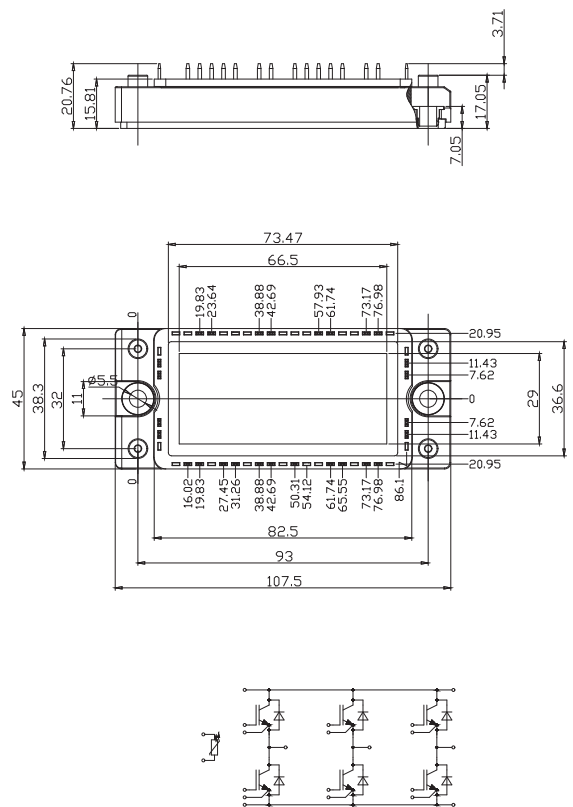
Case A2.0



Case B1.0

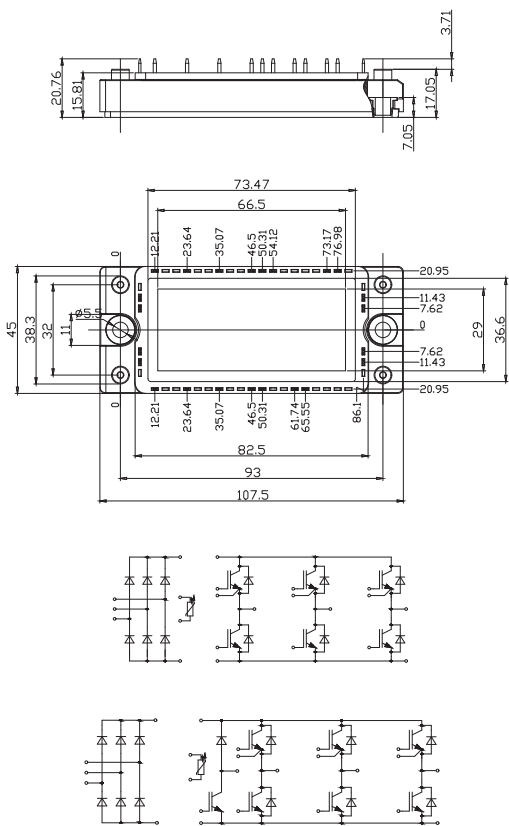


Case B1.1

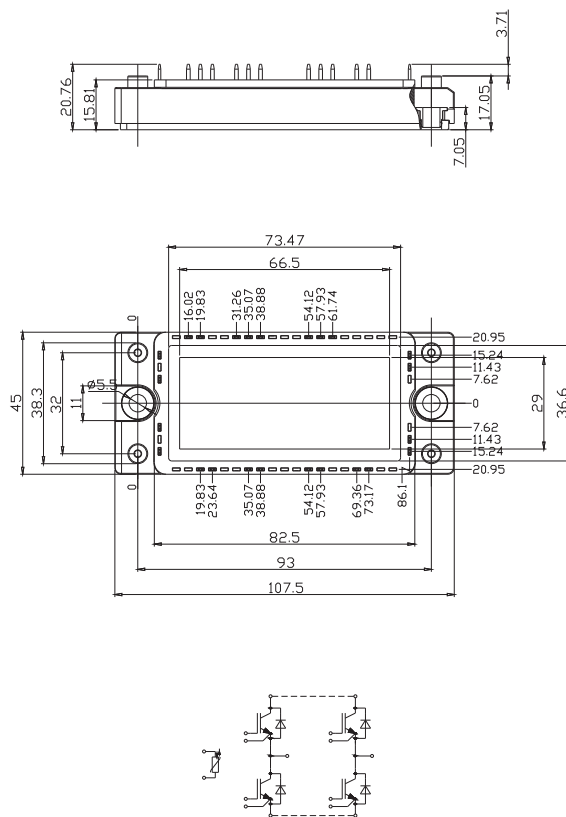


Power Module Package Outlines

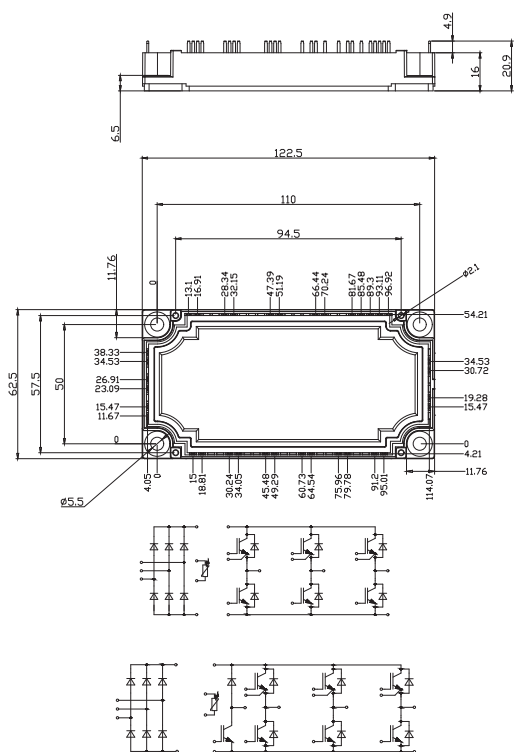
Case B1.2



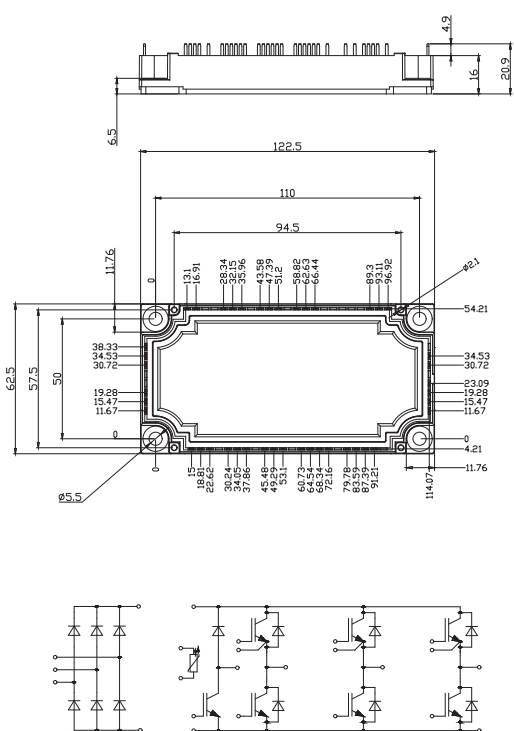
Case B1.3



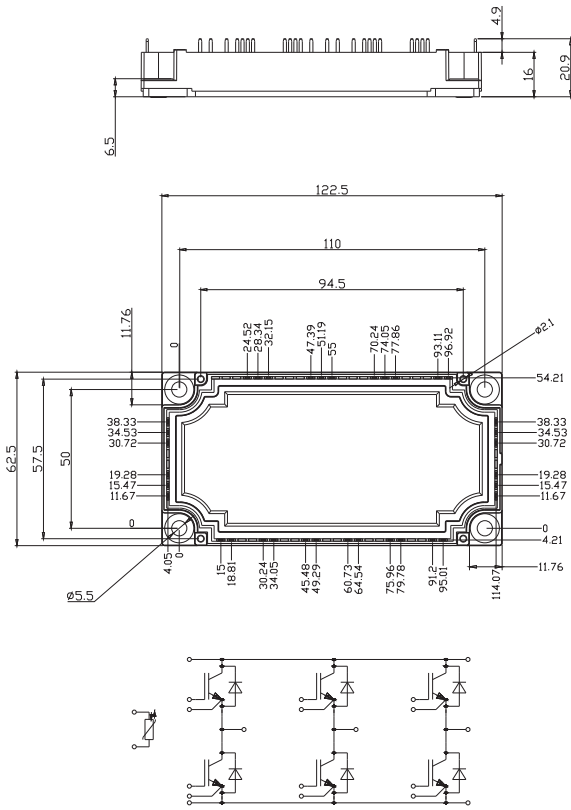
Case B2.0



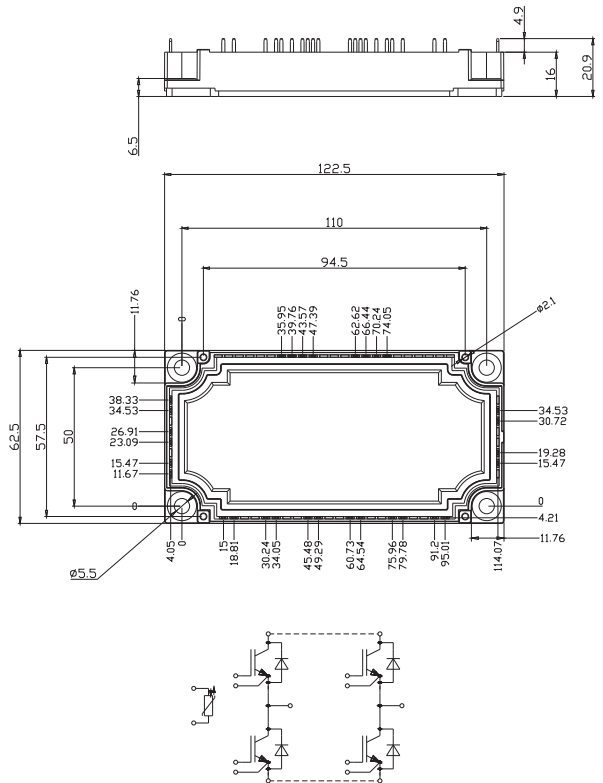
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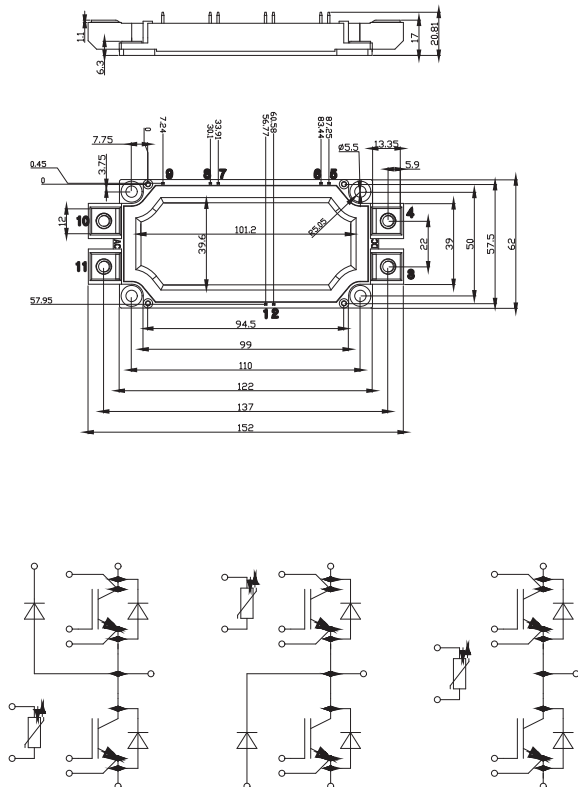
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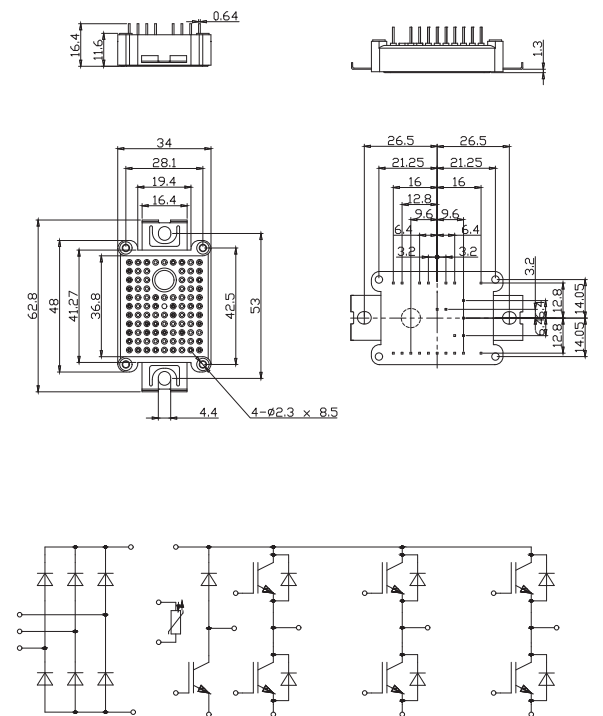
Case B2.3



Case B3.0

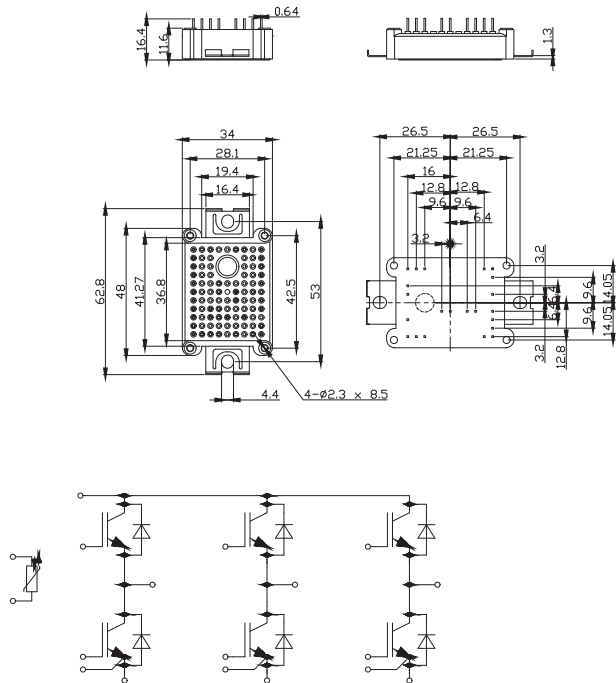


Case C1.0

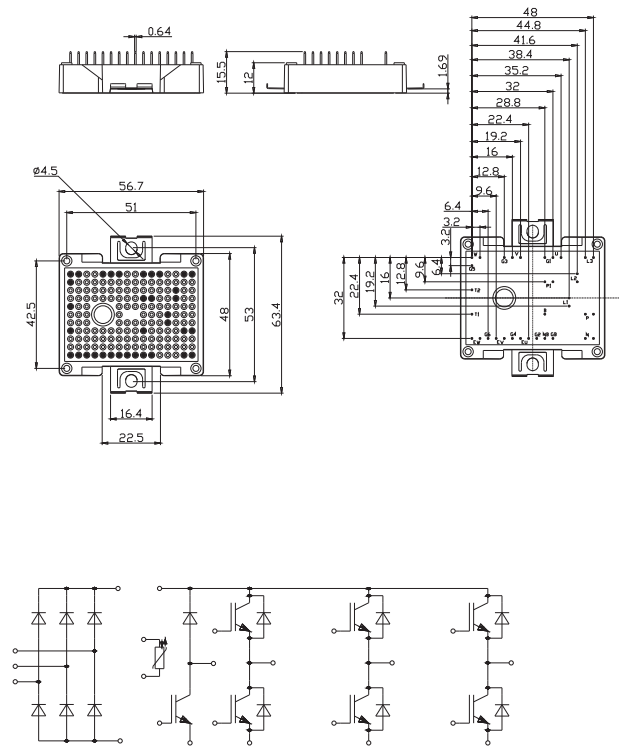


Power Module Package Outlines

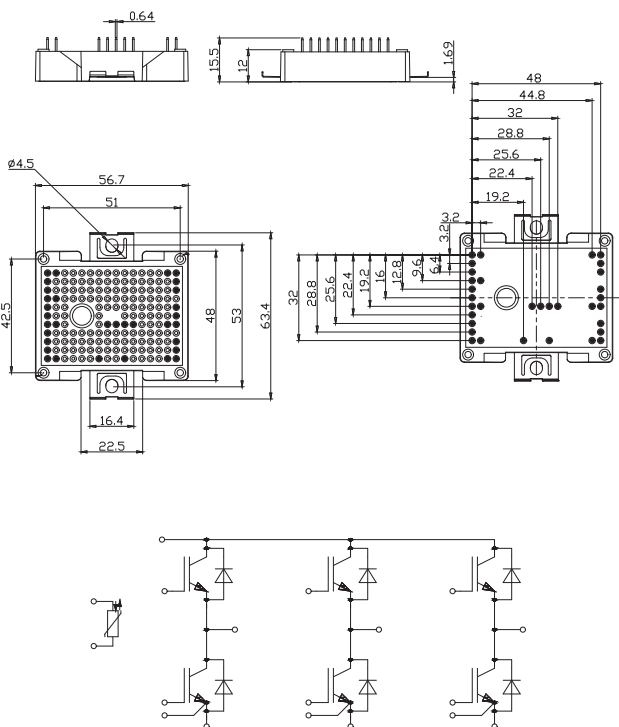
Case C1.1



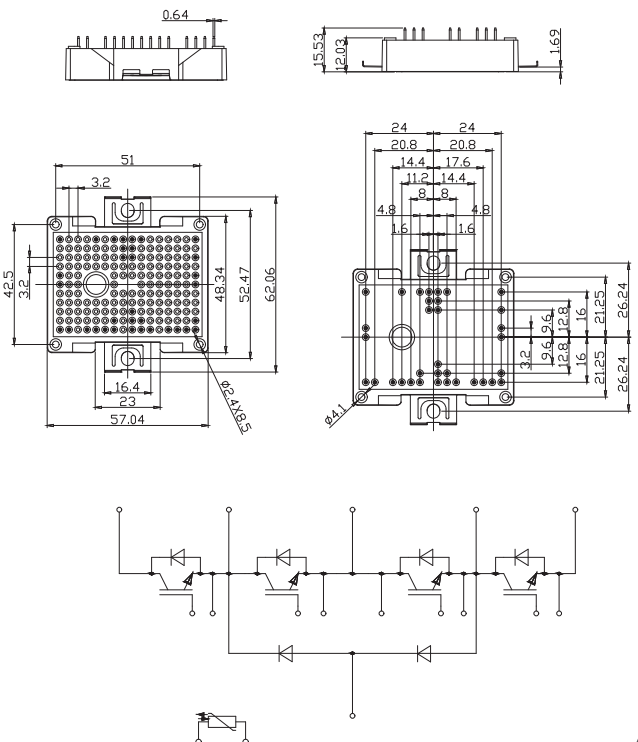
Case C2.0



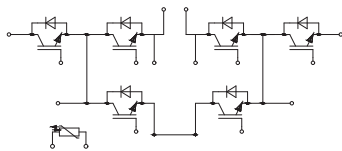
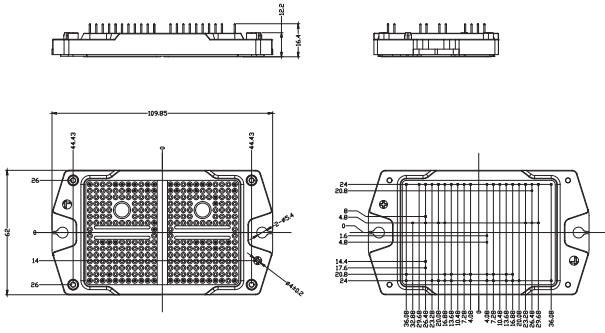
Case C2.1



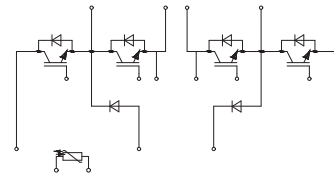
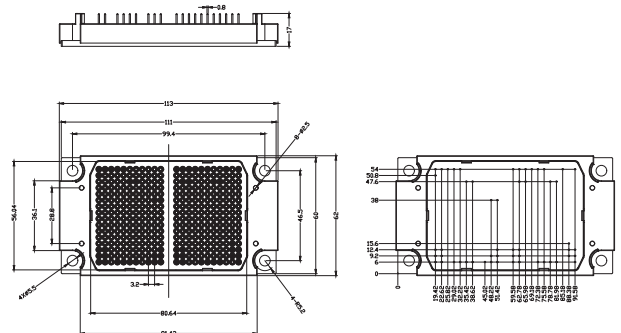
Case C2.2



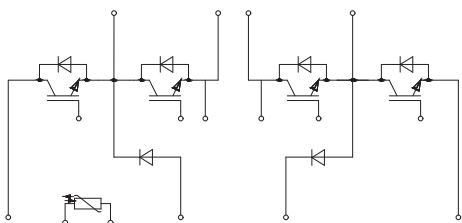
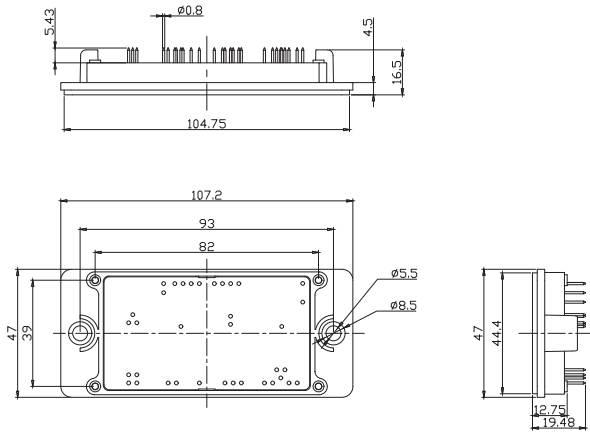
Case C3.0



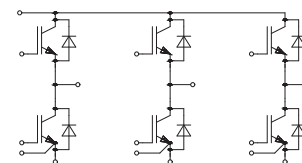
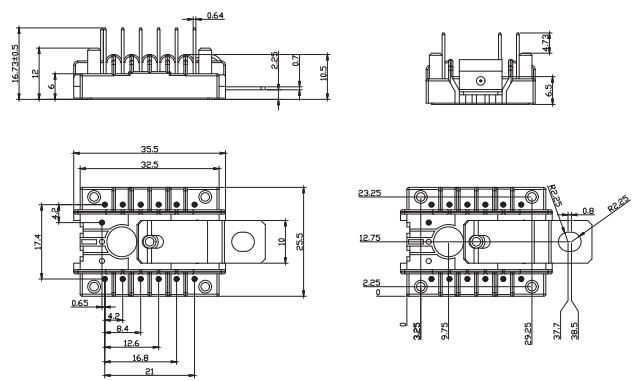
Case C3.1



Case C4.0

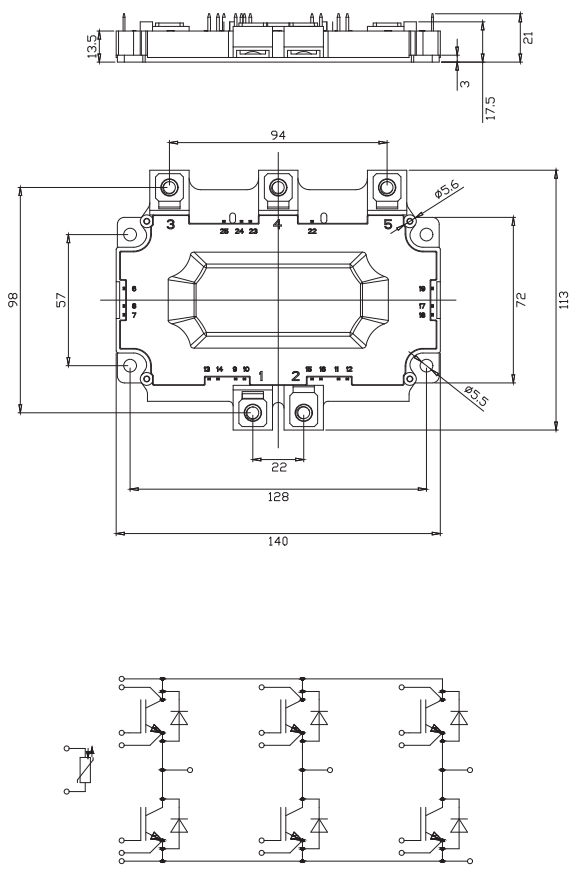


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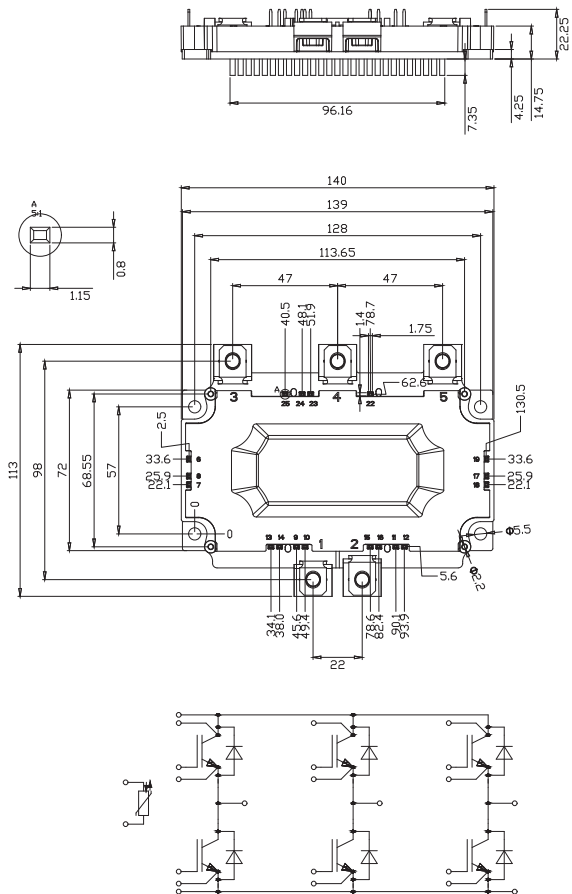


Power Module Package Outlines

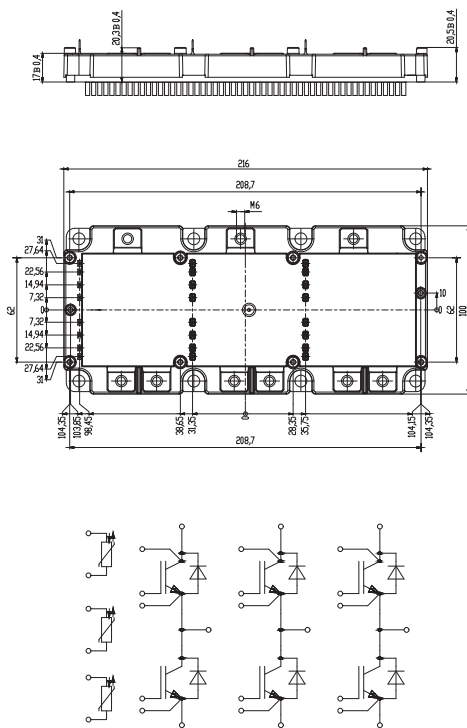
Case H1.0



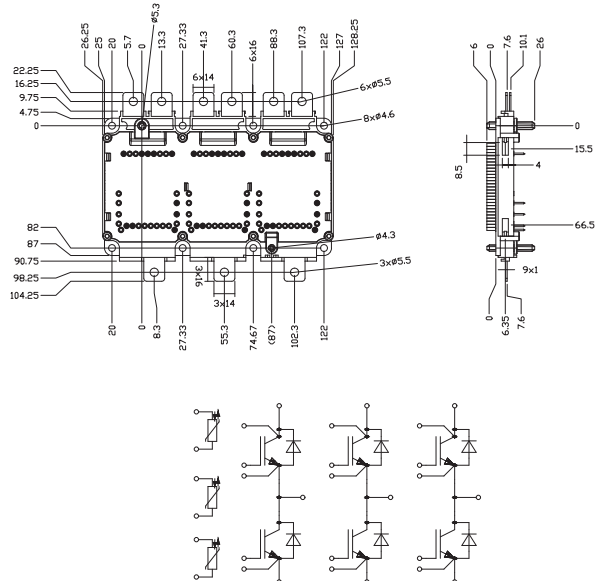
Case H1.1



Case H2.0

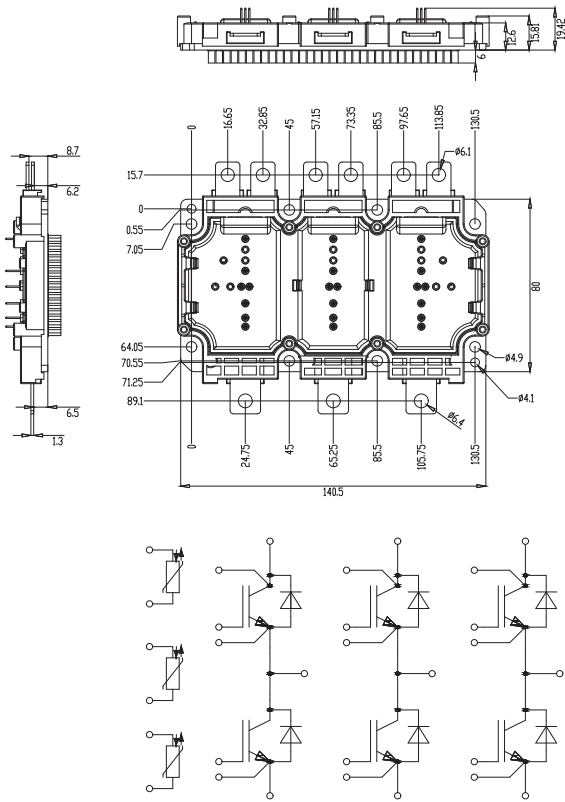


Case H3.0

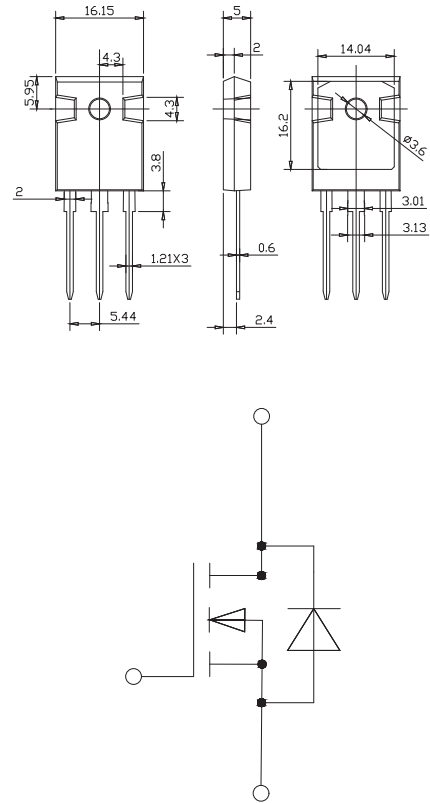


Power Module Package Outlines

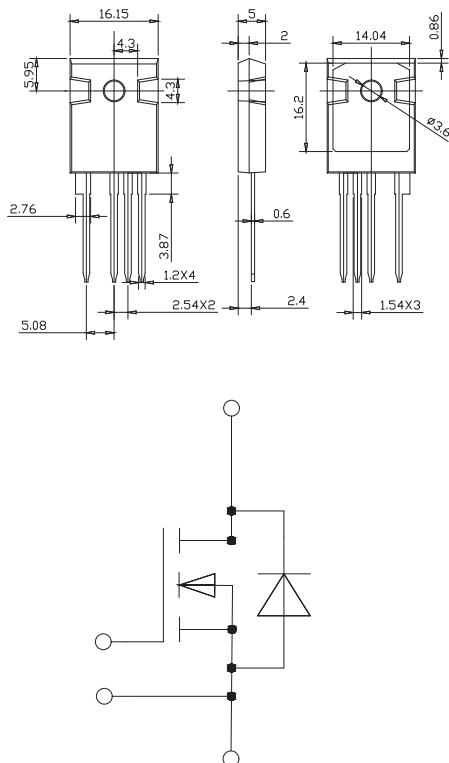
Case H8.0



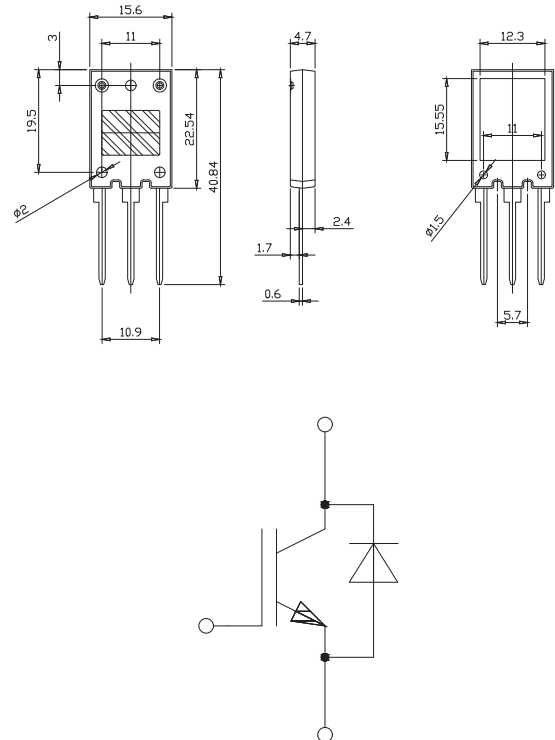
Case T1.0



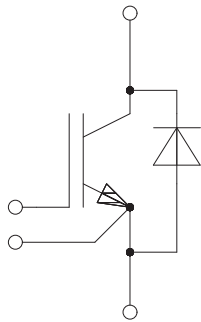
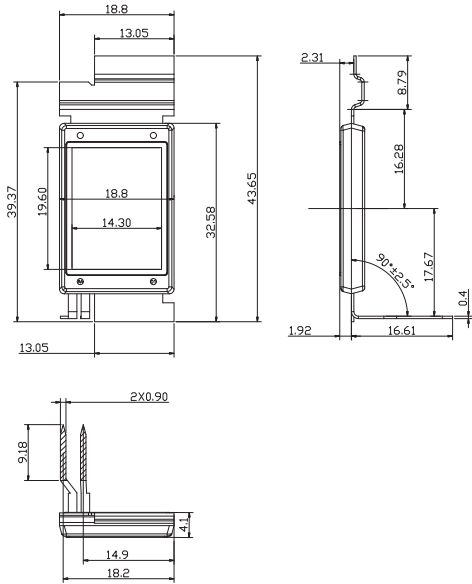
Case T1.1



Case T3.0



Case T4.0

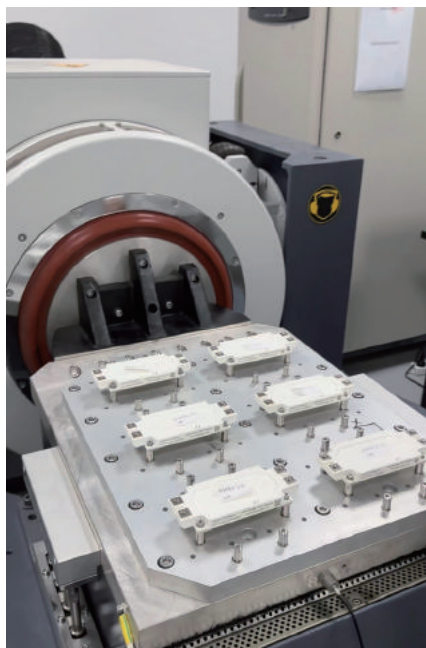
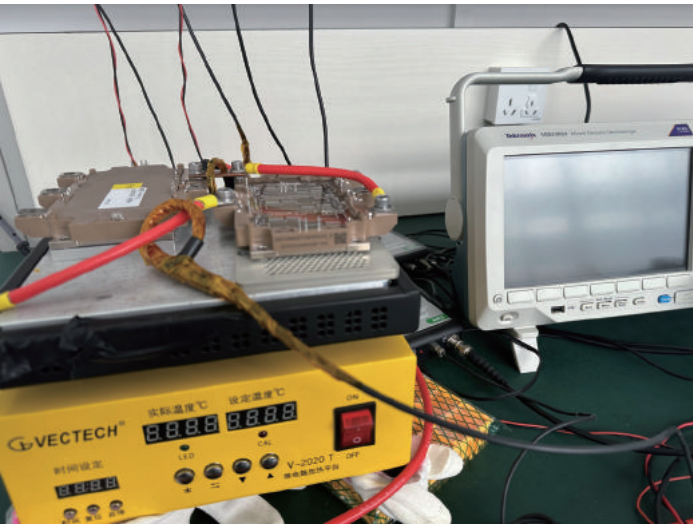
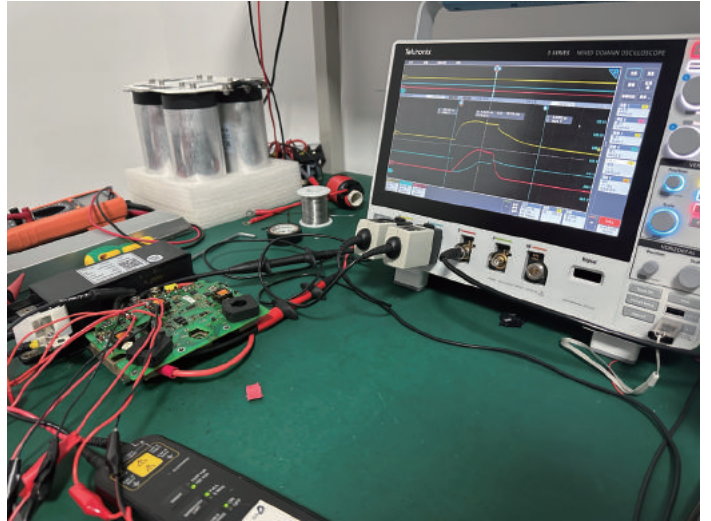


Power Module Package Outlines

PRODUCT
CATALOG

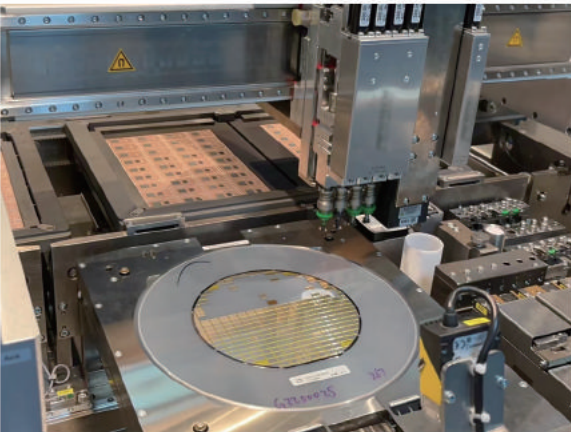
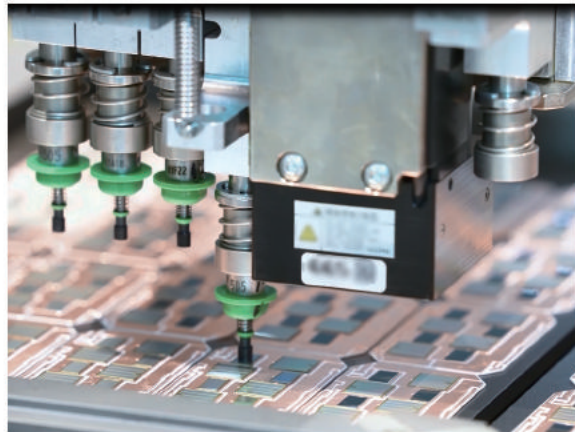
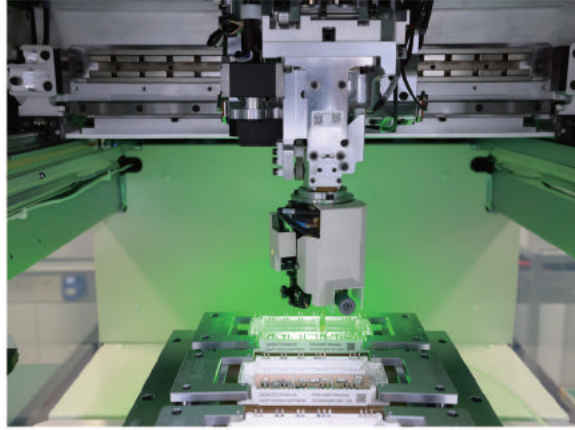
实验室 (已通过CNAS认证)

LABORATORY (CERTIFIED BY CNAS)



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