

DIODE MODULE 100A/1200 to 1600V

PC10012 PC10016

PD10012 PD10016

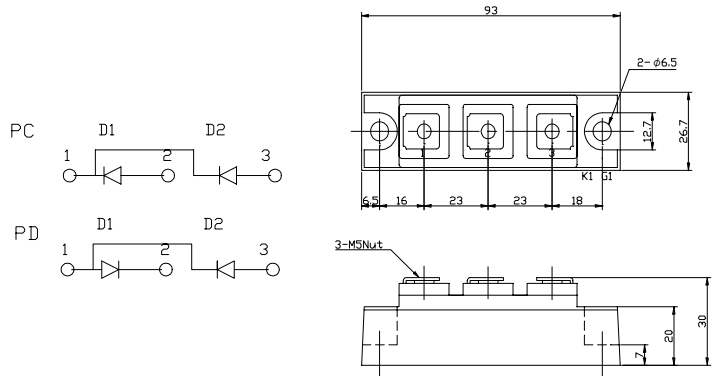
FEATURES

- * Isolated Base
- * Dual Diodes Cathode Common and Cascaded Circuit
- * High Surge Capability
- * UL Recognized, File No. E187184

TYPICAL APPLICATIONS

- * Rectified For General Use

OUTLINE DRAWING



Maximum Ratings

Approx Net Weight:155g

| Parameter | Symbol | Type / Grade | | Unit |
|--|------------------|-------------------|-------------------|------|
| | | PC10012 / PD10012 | PC10016 / PD10016 | |
| Repetitive Peak Reverse Voltage *1 | V _{RRM} | 1200 | 1600 | V |
| Non Repetitive Peak Reverse Voltage *1 | V _{RSM} | 1300 | 1700 | |

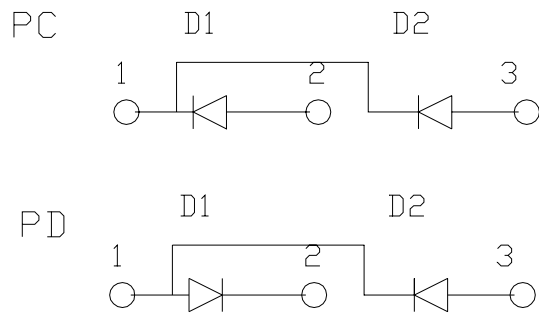
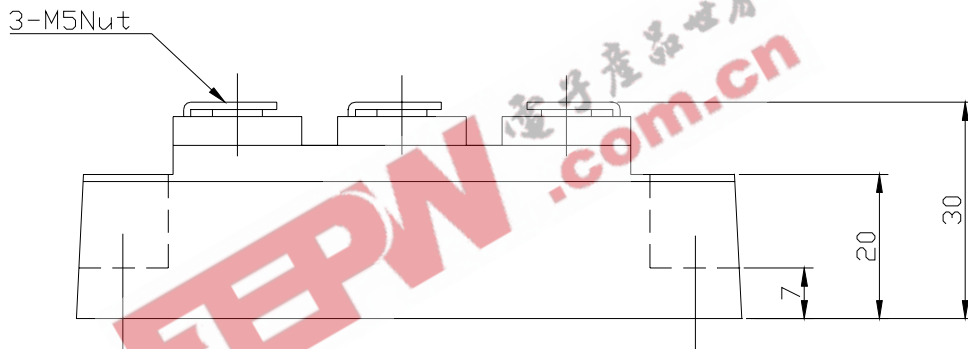
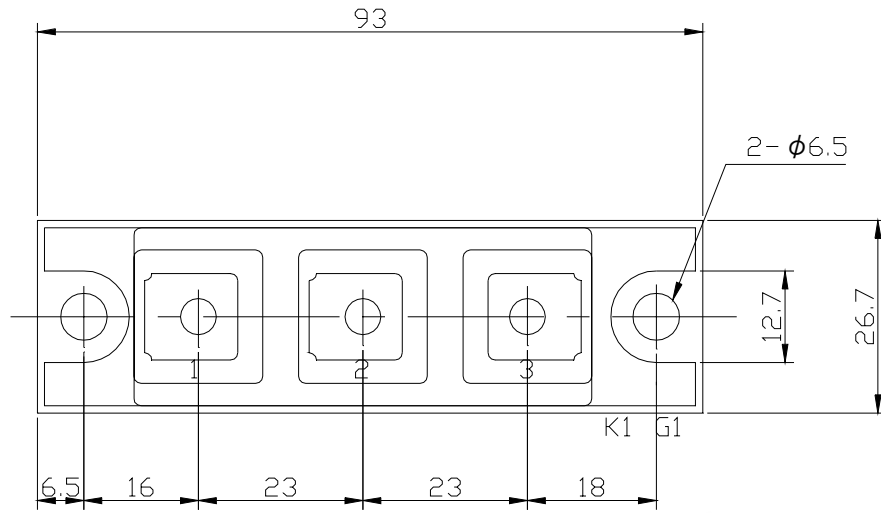
| Parameter | Symbol | Conditions | Max Rated Value | Unit |
|--------------------------------------|---------------------|---|-----------------|------------------|
| Average Rectified Output Current *1 | I _{O(AV)} | 50Hz Half Sine Wave condition T _c =80°C | 100 | A |
| RMS Forward Current *1 | I _{F(RMS)} | | 156 | A |
| Surge Forward Current *1 | I _{FSM} | 50 Hz Half Sine Wave, 1Pulse Non-repetitive | 2000 | A |
| I Squared t *1 | I ² t | 2msec to 10msec | 20000 | A ² s |
| Operating Junction Temperature Range | T _{jw} | | -40 to +150 | °C |
| Storage Temperature Range | T _{stg} | | -40 to +125 | °C |
| Isolation Voltage | V _{iso} | Base Plate to Terminals, AC1min | 2500 | V |
| Mounting torque | Case mounting | F _{tor} | M6 Screw | 2.4 to 3.5 |
| | Terminals | | M5 Screw | 2.4 to 2.8 |

Electrical • Thermal Characteristics

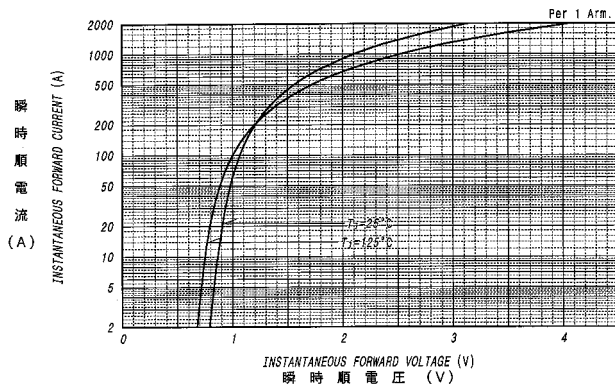
| Characteristics | Symbol | Test Conditions | Max. | Unit |
|-------------------------|----------------------|---|------|------|
| Peak Reverse Current *1 | I _{RM} | V _{RM} = V _{RRM} , T _j = 125°C | 20 | mA |
| Peak Forward Voltage *1 | V _{FM} | I _{FM} = 320A, T _j =25°C | 1.35 | V |
| Thermal Resistance *1 | R _{th(j-c)} | Junction to Case | 0.35 | °C/W |
| | R _{th(c-f)} | Base Plate to Heat Sink with Thermal Compound | 0.2 | |

*1: Value Per 1Arm

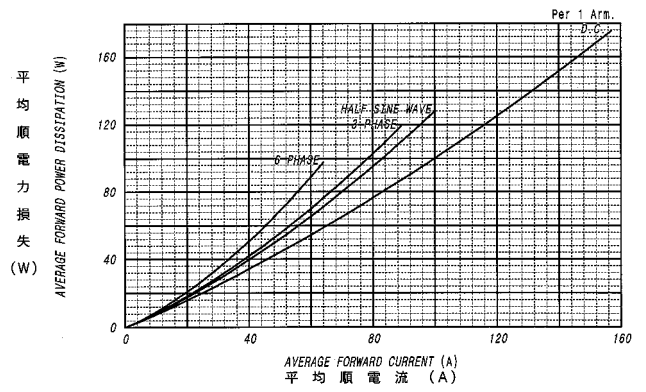
PC/PD10012 OUTLINE DRAWING (Dimensions in mm)



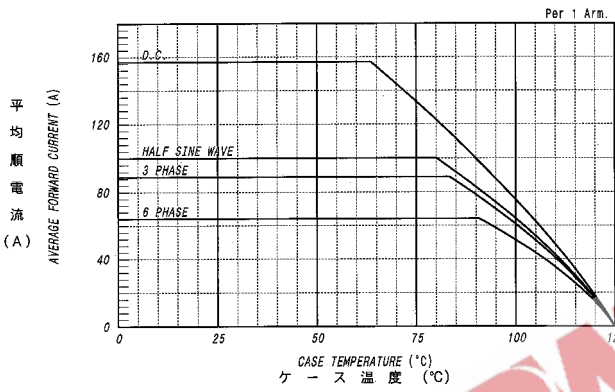
順電圧特性
FORWARD CURRENT VS. VOLTAGE



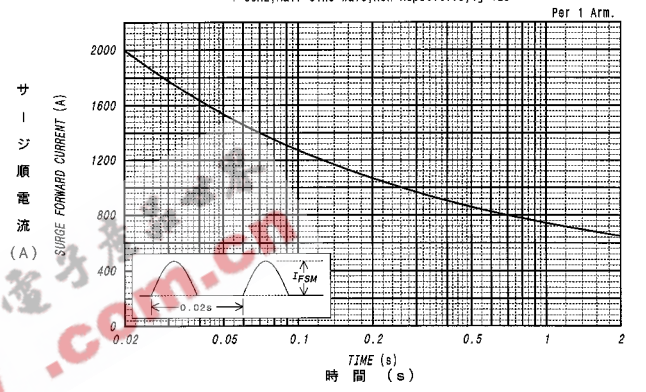
平均順電力損失特性
AVERAGE FORWARD POWER DISSIPATION



平均順電流 - ケース温度定格
AVERAGE FORWARD CURRENT VS. CASE TEMPERATURE



サージ順電流定格
SURGE CURRENT RATINGS



過渡熱抵抗特性
MAXIMUM TRANSIENT THERMAL IMPEDANCE
Junction to Case

