

DIODE MODULE 100A/1200 to 1600V

PC10012 PC10016

PD10012 PD10016

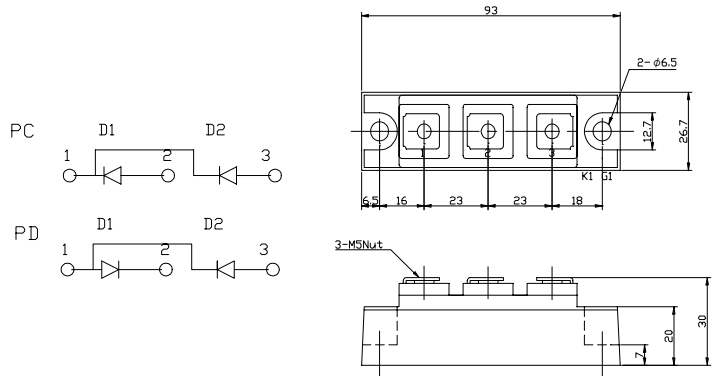
FEATURES

- * 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 | |

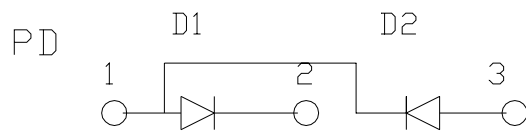
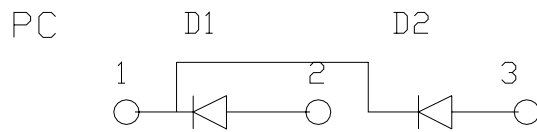
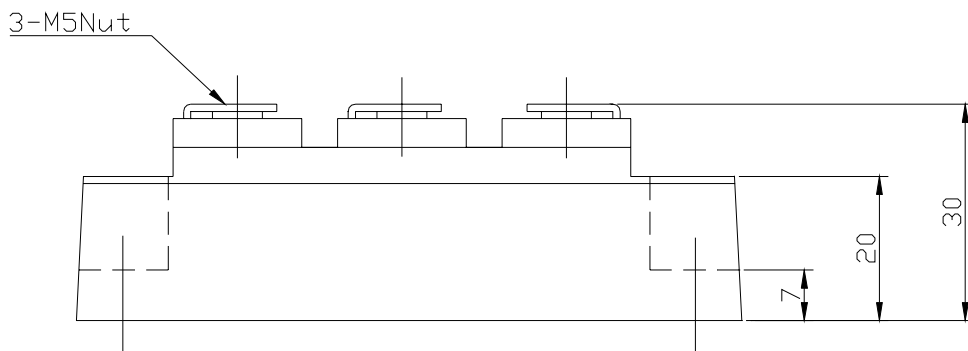
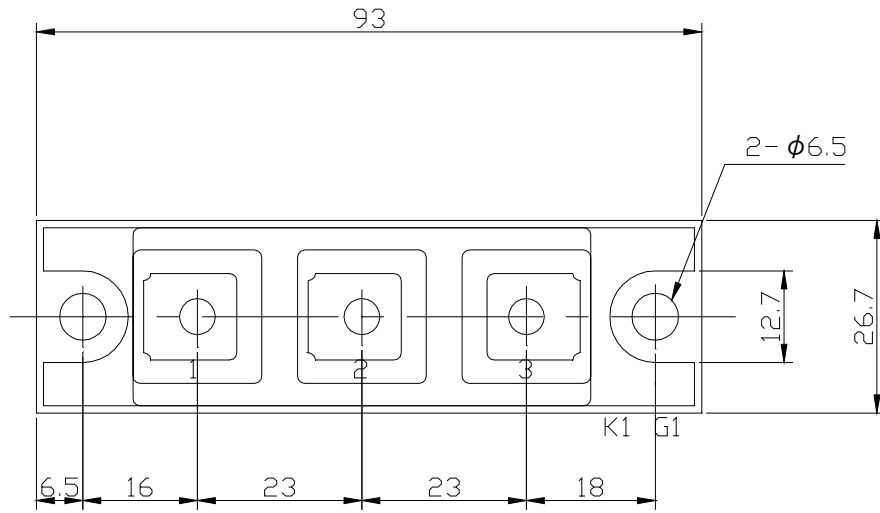
| Parameter | | Conditions | Max Rated Value | Unit |
|--------------------------------------|---------------|---|-----------------|----------------------|
| Average Rectified Output Current *1 | $I_{O(AV)}$ | 50Hz Half Sine Wave condition $T_c=80^\circ\text{C}$ | 100 | A |
| RMS Forward Current *1 | $I_{F(RMS)}$ | | 156 | A |
| Surge Forward Current *1 | I_{FSM} | 50 Hz Half Sine Wave, 1Pulse Non-repetitive | 2000 | A |
| I Squared t *1 | I^2t | 2msec to 10msec | 20000 | A^2s |
| Operating Junction Temperature Range | T_{jw} | | -40 to +150 | $^\circ\text{C}$ |
| Storage Temperature Range | T_{stg} | | -40 to +125 | $^\circ\text{C}$ |
| Isolation Voltage | V_{iso} | Base Plate to Terminals, AC1min | 2500 | V |
| Mounting torque | Case mounting | M6 Screw | 2.4 to 3.5 | align="center">N.m |
| | Terminals | M5 Screw | 2.4 to 2.8 | |

Electrical • Thermal Characteristics

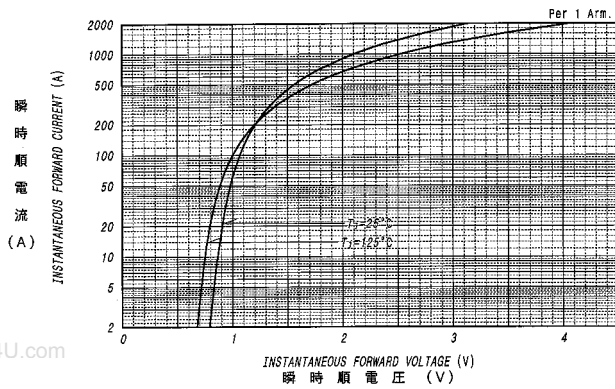
| Characteristics | Symbol | Test Conditions | Max. | Unit |
|-------------------------|---------------|---|------|------------------------------------|
| Peak Reverse Current *1 | I_{RM} | $V_{RM}= V_{RRM}, T_j= 125^\circ\text{C}$ | 20 | mA |
| Peak Forward Voltage *1 | V_{FM} | $I_{FM}= 320\text{A}, T_j=25^\circ\text{C}$ | 1.35 | V |
| Thermal Resistance *1 | $R_{th(j-c)}$ | Junction to Case | 0.35 | align="center"> $^\circ\text{C/W}$ |
| | $R_{th(c-f)}$ | Base Plate to Heat Sink with Thermal Compound | 0.2 | |

*1: Value Per 1Arm

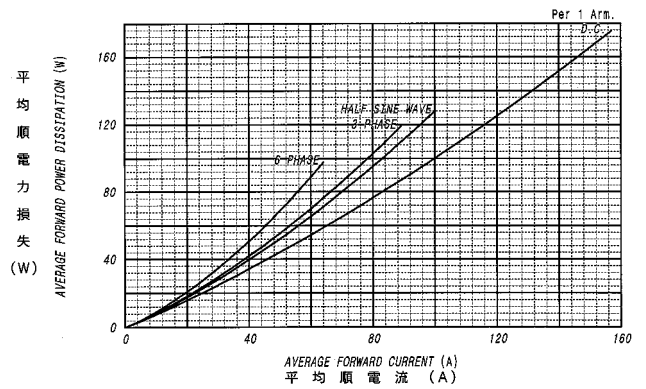
PC/PD10012 OUTLINE DRAWING (Dimensions in mm)



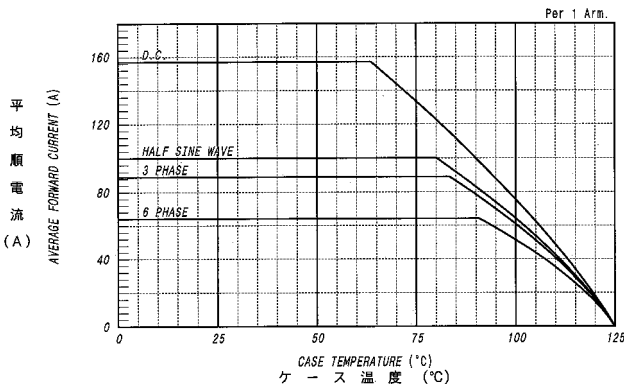
順電圧特性
FORWARD CURRENT VS. VOLTAGE



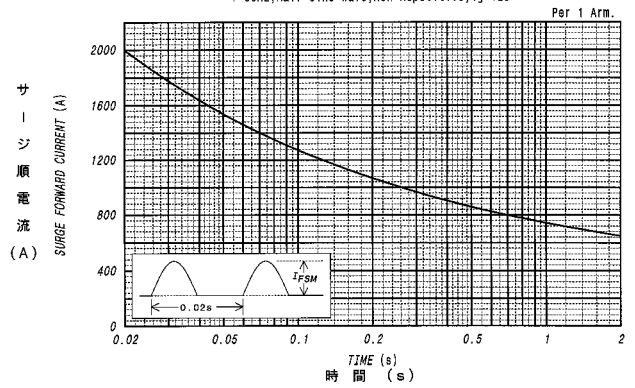
平均順電力損失特性
AVERAGE FORWARD POWER DISSIPATION



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

