

# DIODE MODULE 150A/1200 to 1600V

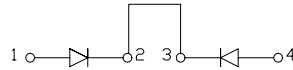
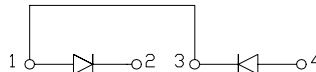
**PC15012 PC15016**
**PD15012 PD15016**

## FEATURES

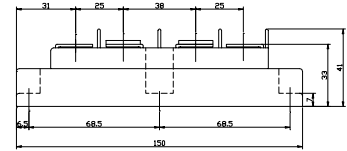
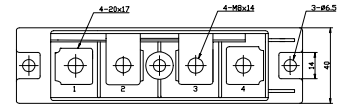
- \* Isolated Base
- \* Dual Diodes Cathode Common and Cascaded Circuit
- \* High Surge Capability
- \* UL Recognized, File No. E187184

## TYPICAL APPLICATIONS

- \* Rectified For General Use

**PC**

**PD**


## OUTLINE DRAWING



## Maximum Ratings

Approx Net Weight:480g

| Parameter                              | Symbol    | Type / Grade      |                   | Unit |
|----------------------------------------|-----------|-------------------|-------------------|------|
|                                        |           | PC15012 / PD15012 | PC15016 / PD15016 |      |
| Repetitive Peak Reverse Voltage *1     | $V_{RRM}$ | 1200              | 1600              | V    |
| Non Repetitive Peak Reverse Voltage *1 | $V_{RSM}$ | 1300              | 1700              |      |

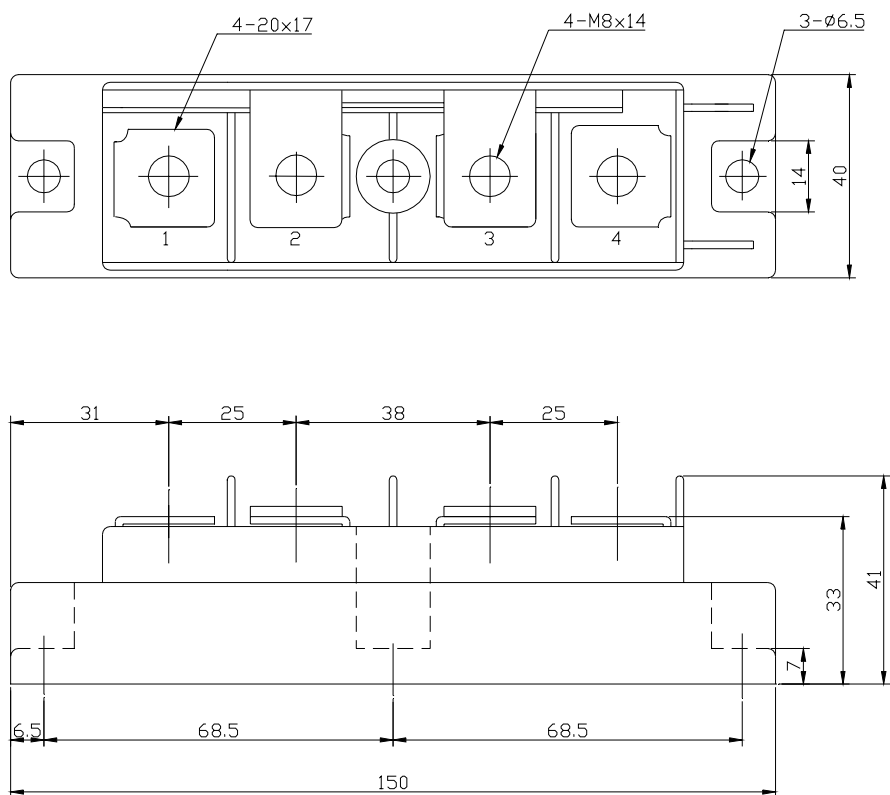
| Parameter                            |               | Symbol       | Conditions                                                 | Max Rated Value | Unit                 |
|--------------------------------------|---------------|--------------|------------------------------------------------------------|-----------------|----------------------|
| Average Rectified Output Current *1  |               | $I_{O(AV)}$  | 50 Hz Half Sine Wave condition<br>$T_c=79^{\circ}\text{C}$ | 150             | A                    |
| RMS Forward Current *1               |               | $I_{F(RMS)}$ |                                                            | 235             | A                    |
| Surge Forward Current *1             |               | $I_{FSM}$    | 50 Hz Half Sine Wave, 1cycle,<br>Non-Repetitive            | 3200            | A                    |
| I Squared t *1                       |               | $I^2t$       | 2msec to 10msec                                            | 51200           | $\text{A}^2\text{s}$ |
| Operating Junction Temperature Range |               | $T_{jw}$     |                                                            | -40 to +125     | $^{\circ}\text{C}$   |
| 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 | $F_{tor}$    | M6 Screw                                                   | 2.5 to 3.5      | N.m                  |
|                                      | Terminals     |              | M8 Screw                                                   | 9.0 to 10.0     |                      |

## Electrical • Thermal Characteristics

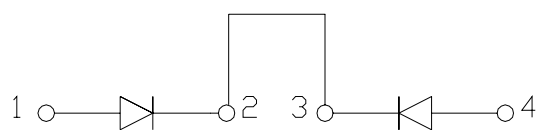
| Characteristics         | Symbol        | Test Conditions                                  | Max. | Unit                 |
|-------------------------|---------------|--------------------------------------------------|------|----------------------|
| Peak Reverse Current *1 | $I_{RM}$      | $V_{RM}= V_{RRM}$ , $T_j= 125^{\circ}\text{C}$   | 30   | mA                   |
| Peak Forward Voltage *1 | $V_{FM}$      | $I_{FM}= 450\text{A}$ , $T_j=25^{\circ}\text{C}$ | 1.28 | V                    |
| Thermal Resistance *1   | $R_{th(j-c)}$ | Junction to Case                                 | 0.25 | $^{\circ}\text{C/W}$ |
|                         | $R_{th(c-f)}$ | Case to Fin, Greased                             | 0.1  |                      |

\*1: Value Per 1Arm

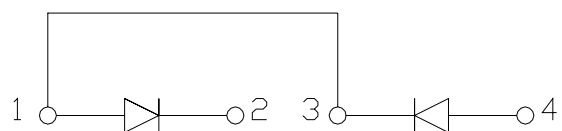
PC/PD15012/16 OUTLINE DRAWING (Dimensions in mm)



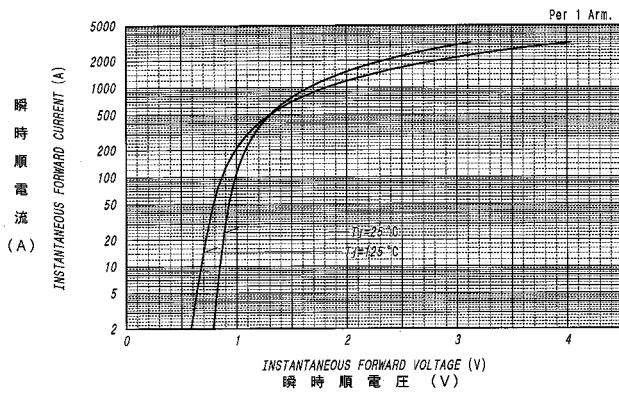
PC



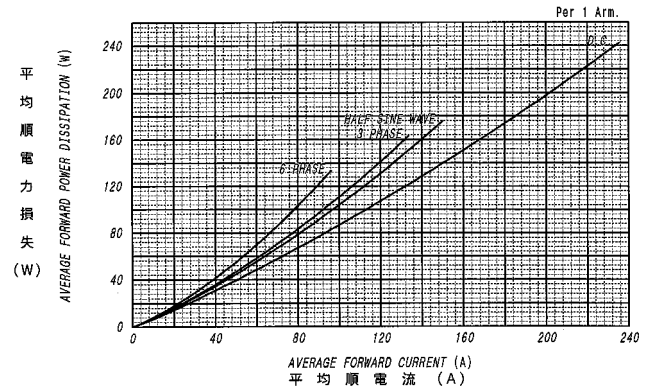
PD



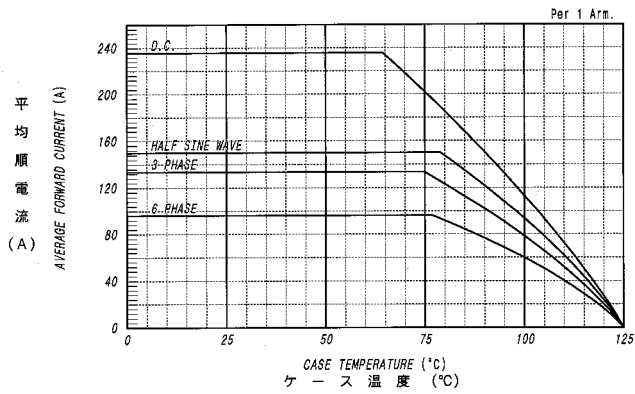
順電圧特性  
FORWARD CURRENT VS. VOLTAGE



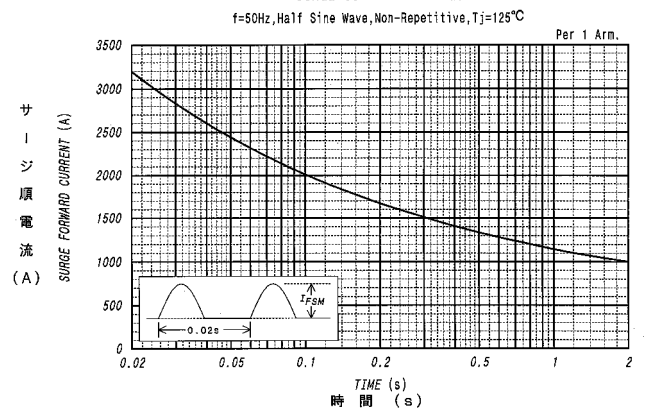
平均順電力損失特性  
AVERAGE FORWARD POWER DISSIPATION



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

