

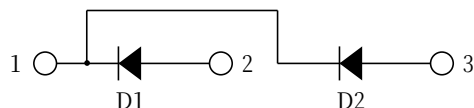
# DIODE

100A Avg 1200~1600 Volts

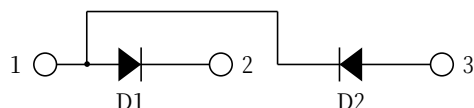
PC10012 PC10016  
PD10012 PD10016

## ■回路図 CIRCUIT

PC

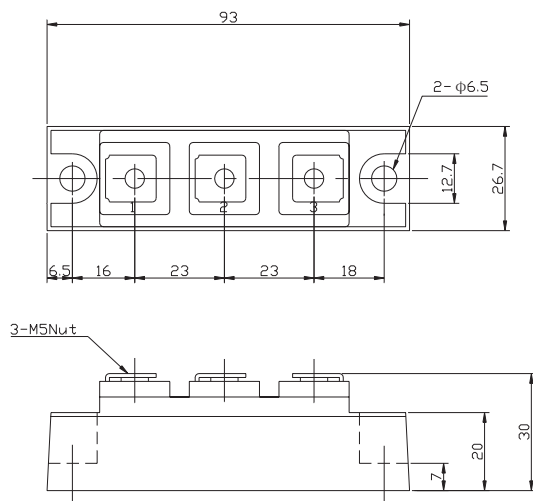


PD



## ■外形寸法図 OUTLINE DRAWING

(単位 Dimension : mm)



## ■最大定格 Maximum Ratings

| 項 目<br>Parameter                                      | 記号<br>Symbol | 耐压クラス Grade     |                 | 単位<br>Unit |
|-------------------------------------------------------|--------------|-----------------|-----------------|------------|
|                                                       |              | PC10012/PD10012 | PC10016/PD10016 |            |
| くり返しピーク逆電圧 *1<br>Repetitive Peak Reverse Voltage      | $V_{RRM}$    | 1200            | 1600            | V          |
| 非くり返しピーク逆電圧 *1<br>Non Repetitive Peak Reverse Voltage | $V_{RSM}$    | 1300            | 1700            | V          |

| 項 目<br>Parameter                                 |                  | 記号<br>Symbol | 条 件<br>Conditions                                                 |    | 定格値<br>Max. Rated Value | 単位<br>Unit       |
|--------------------------------------------------|------------------|--------------|-------------------------------------------------------------------|----|-------------------------|------------------|
| 平均整流電流 *1<br>Average Rectified Output Current    |                  | $I_0$ (AV)   | 商用周波数 180 ° 通電 $T_c=80^{\circ}C$<br>Half Sine Wave                |    | 100                     | A                |
| 実効順電流 *1<br>RMS Forward Current                  |                  | $I_F$ (RMS)  |                                                                   |    | 156                     | A                |
| サージ順電流 *1<br>Surge Forward Current               |                  | $I_{FSM}$    | 50Hz正弦半波, 1 サイクル, 非くり返し<br>Half Sine Wave, 1Pulse, Non-Repetitive |    | 2000                    | A                |
| 電流二乗時間積 *1<br>I Squared t                        |                  | $I^2t$       | 2 ~10ms                                                           |    | 20000                   | A <sup>2</sup> s |
| 動作接合温度範囲<br>Operating Junction Temperature Range |                  | $T_{jw}$     |                                                                   |    | -40 ~ +125              | °C               |
| 保存温度範囲<br>Storage Temperature Range              |                  | $T_{stg}$    |                                                                   |    | -40 ~ +125              | °C               |
| 絶縁耐圧<br>Isolation Voltage                        |                  | $V_{iso}$    | 端子ーベース間, AC 1 分間<br>Terminal to Base, AC 1 min.                   |    | 2500                    | V                |
| 締付トルク<br>Mounting Torque                         | ベース部<br>Mounting | F            | サーマルコンパウンド塗布<br>Greased                                           | M6 | 2.4 ~ 3.5               | N・m              |
|                                                  | 主端子部<br>Terminal |              |                                                                   | M5 | 2.4 ~ 2.8               | N・m              |

## ■電気的特性 Electrical Characteristics

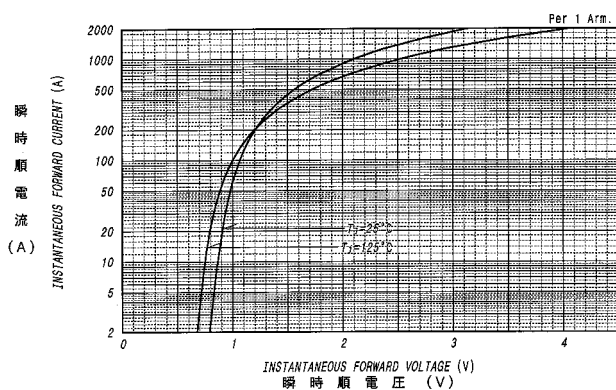
| 項 目<br>Parameter                  | 記号<br>Symbol  | 条 件<br>Conditions                              | 特性値 (最大)<br>Maximum Value | 単位<br>Unit   |
|-----------------------------------|---------------|------------------------------------------------|---------------------------|--------------|
| ピーク逆電流 *1<br>Peak Reverse Current | $I_{RM}$      | $T_j=125^\circ C$ , $V_{RM}=V_{RRM}$           | 20                        | mA           |
| ピーク順電圧 *1<br>Peak Forward Voltage | $V_{FM}$      | $T_j=25^\circ C$ , $I_{FM}=320A$               | 1.35                      | V            |
| 熱抵抗<br>Thermal Resistance         | $R_{th(j-c)}$ | 接合部ーケース間<br>Junction to Case                   | 0.35                      | $^\circ C/W$ |
| 接触熱抵抗 *1<br>Thermal Resistance    | $R_{th(c-f)}$ | ケースーフィン間, サーマルコンパウンド塗布<br>Case to Fin, Greased | 0.2                       | $^\circ C/W$ |

質量…約155g  
Approximate Weight

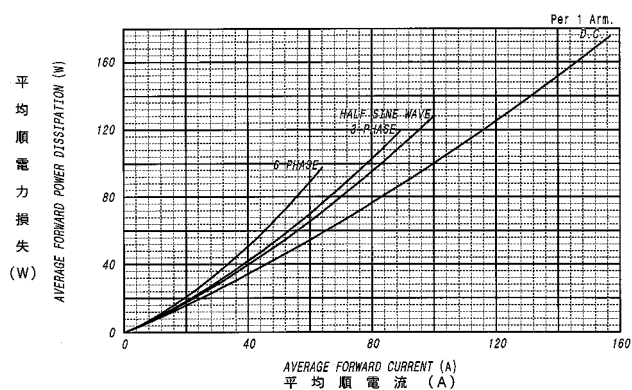
\*1: 1 アーム当りの値 Value Per 1 Arm.

■ 定格・特性曲線

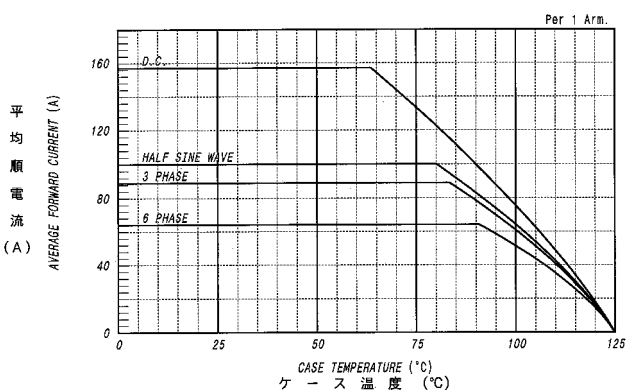
順電圧特性  
FORWARD CURRENT VS. VOLTAGE



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

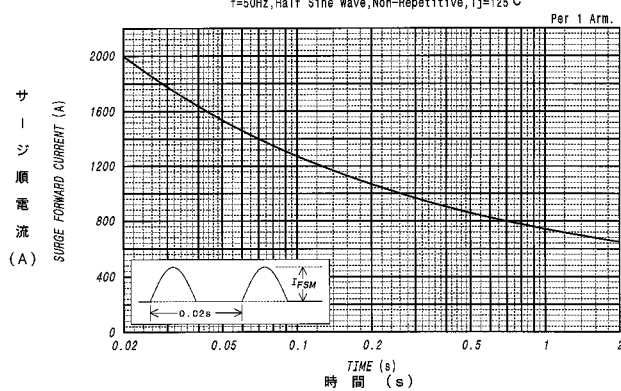


平均順電流 - ケース温度定格  
AVERAGE FORWARD CURRENT VS. CASE TEMPERATURE



サージ順電流定格  
SURGE CURRENT RATINGS

$f=50\text{Hz}$ , Half Sine Wave, Non-Repetitive,  $T_j=125^\circ\text{C}$



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

