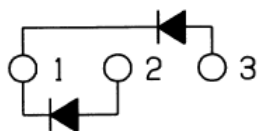


# DIODE

## 100A Avg 800 Volts

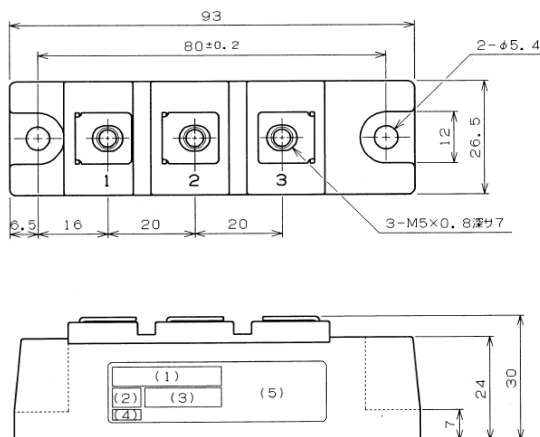
### PC1008

#### ■回路図 CIRCUIT



#### ■外形寸法図 OUTLINE DRAWING

Dimension: [mm]



#### ■最大定格 Maximum Ratings

| 項目<br>Parameter                                    | 記号<br>Symbol    | 耐圧クラス Grade |  | 単位<br>Unit |
|----------------------------------------------------|-----------------|-------------|--|------------|
|                                                    |                 | PC1008      |  |            |
| くり返しピーク逆電圧<br>Repetitive Peak Reverse Voltage      | *1<br>$V_{RRM}$ | 800         |  | V          |
| 非くり返しピーク逆電圧<br>Non Repetitive Peak Reverse Voltage | *1<br>$V_{RSM}$ | 960         |  | 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<br>Average Rectified Output Current       |                  | *1<br>$I_{O(AV)}$ | 商用周波数 180° 通電 $T_c=105^{\circ}C$<br>Half Sine Wave                 |    | 100                                            | A                |   |
| 実効順電流<br>RMS Forward Current                     |                  | *1<br>$I_{FRMS}$  |                                                                    |    | 156                                            | A                |   |
| サージ順電流<br>Surge Forward Current                  |                  | *1<br>$I_{FSM}$   | 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<br>I Squared t                           |                  | *1<br>$I^2t$      | 2～10ms                                                             |    | 20000                                          | A <sup>2</sup> s |   |
| 動作接合温度範囲<br>Operating Junction Temperature Range |                  |                   | $T_{jw}$                                                           |    | -40 ～ +150                                     | ℃                |   |
| 保存温度範囲<br>Storage Temperature Range              |                  |                   | $T_{stg}$                                                          |    | -40 ～ +125                                     | ℃                |   |
| 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 1min. | 2000             | V |
| 締付トルク<br>Mounting Torque                         | ベース部<br>Mounting | F                 | サーマルパワント塗布<br>Greased                                              | M5 | 2.4 ～ 2.8                                      | N・m              |   |
|                                                  | 主端子部<br>Terminal |                   |                                                                    | M5 | 2.4 ～ 2.8                                      | N・m              |   |

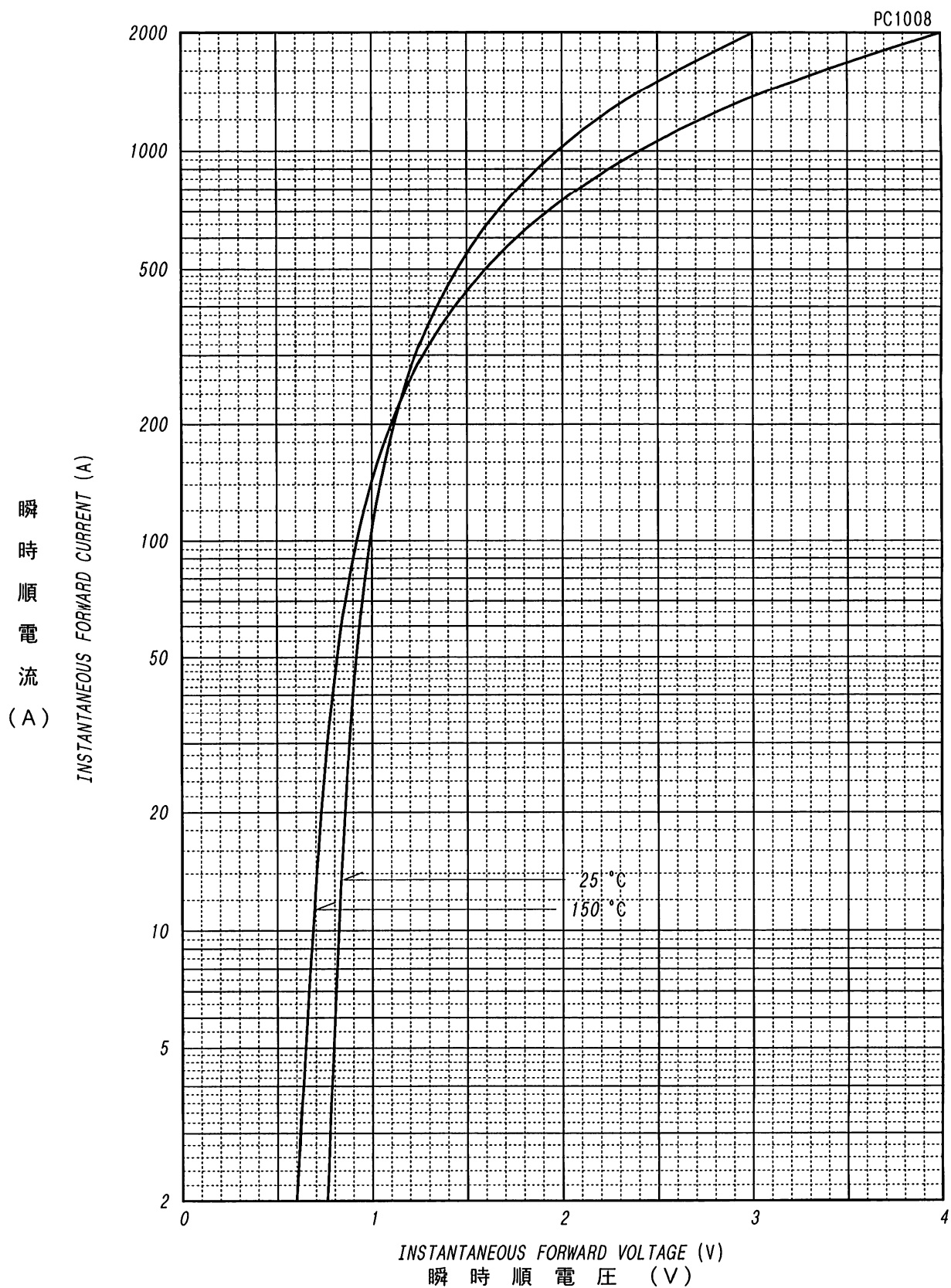
#### ■電気的特性 Electrical Characteristics

| 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<br>Peak Reverse Current | *1<br>$I_{RM}$      | $T_j=150^{\circ}C$ , $V_{RM}=V_{RRM}$       | 20                        | mA         |
| ピーク順電圧<br>Peak Forward Voltage | *1<br>$V_{FM}$      | $T_j=25^{\circ}C$ , $I_{FM}=320A$           | 1.25                      | V          |
| 熱抵抗<br>Thermal Resistance      | *1<br>$R_{th(j-c)}$ | 接合部ーケース間<br>Junction to Case                | 0.3                       | °CW        |
| 接合熱抵抗<br>Thermal Resistance    | *1<br>$R_{th(c-f)}$ | ケースフィン間, サーマルパワント塗布<br>Case to Fin, Greased | 0.2                       | °CW        |

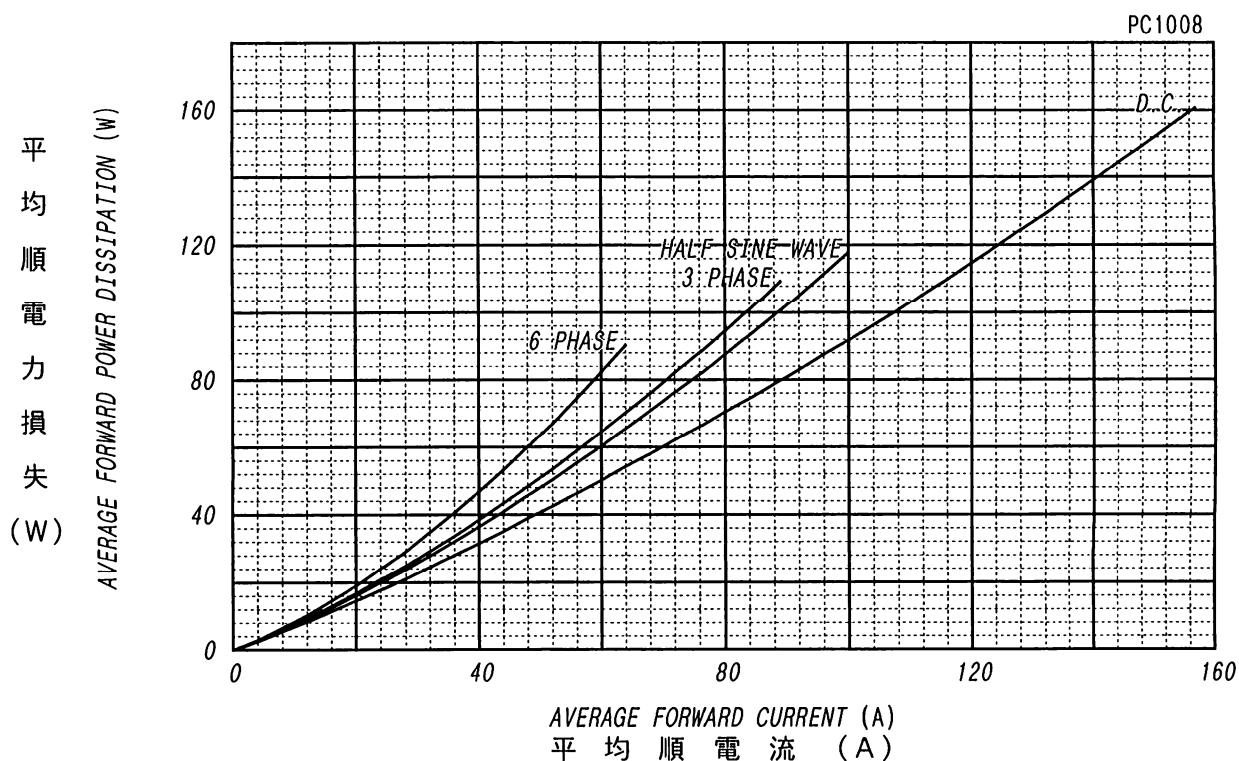
質量 --- 約 155g  
Approximate Weight

\*1: 1 アーム当りの値 Value Per 1 Arm.

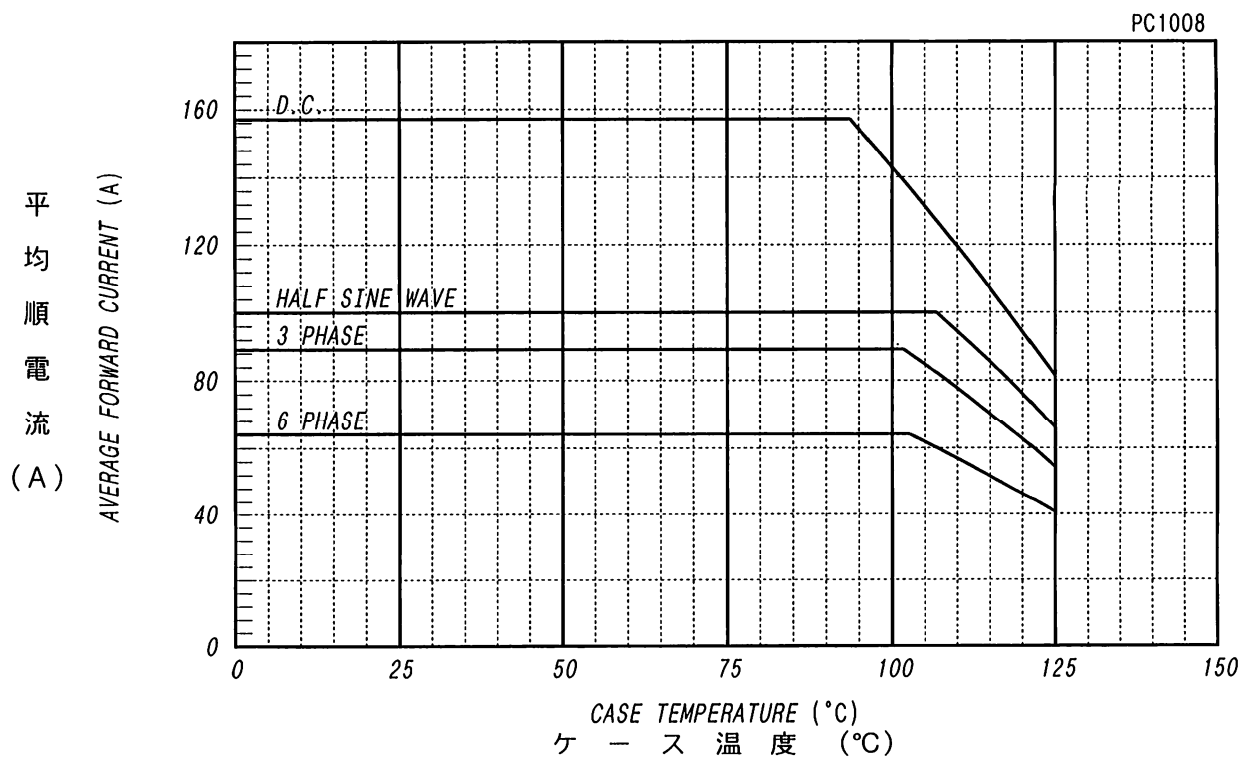
順電圧特性  
FORWARD CURRENT VS. VOLTAGE



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

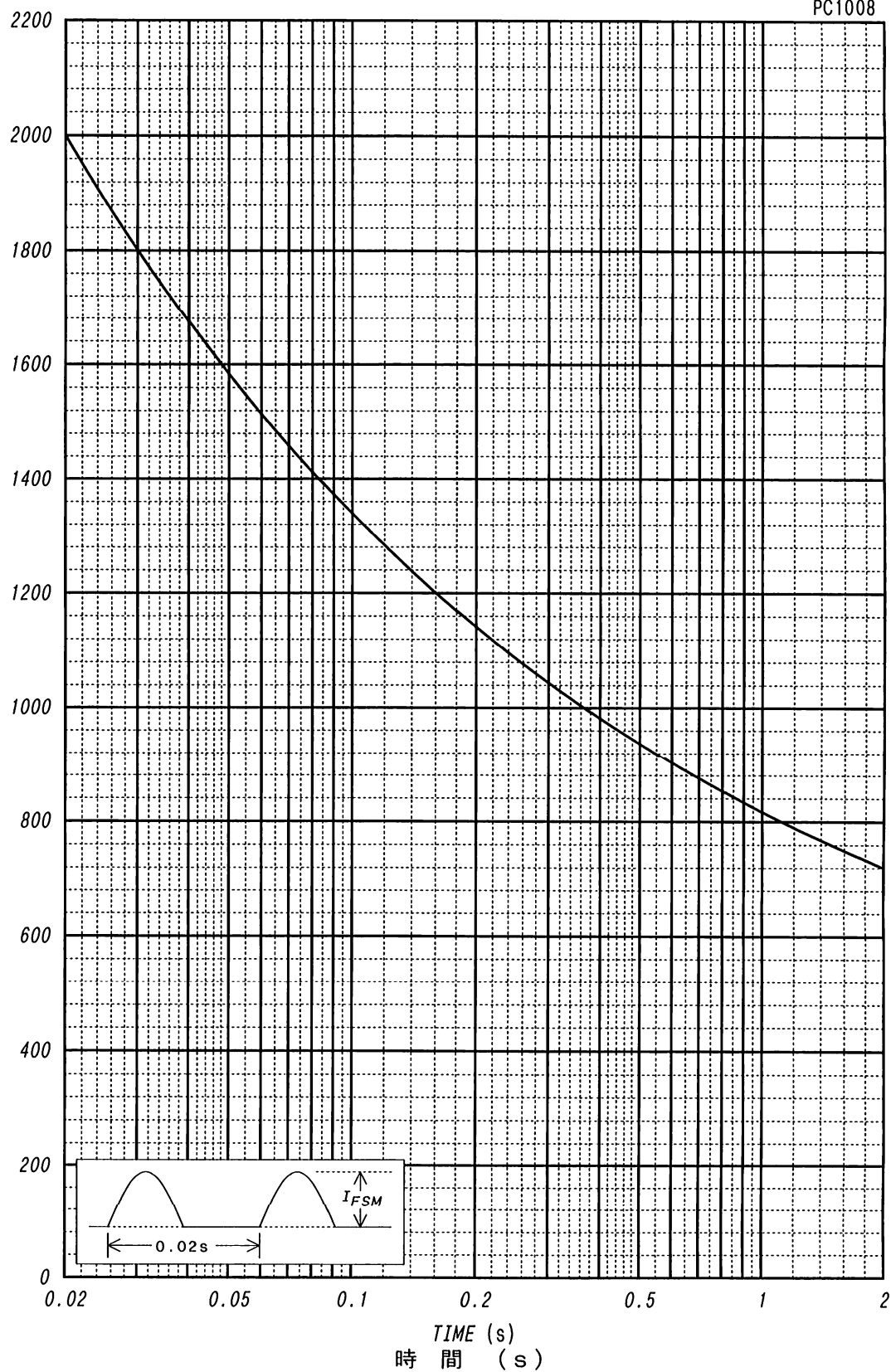
SURGE CURRENT RATINGS

f=50Hz, Half Sine Wave, Non-Repetitive, Tj=150°C

PC1008

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流  
(A)

SURGE FORWARD CURRENT (A)



過渡熱抵抗特性  
MAXIMUM TRANSIENT THERMAL IMPEDANCE

Junction to Case

