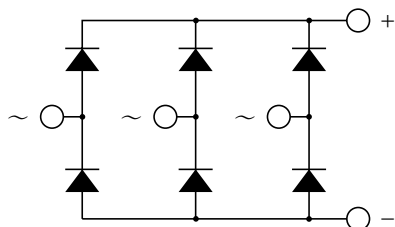


**DIODE**

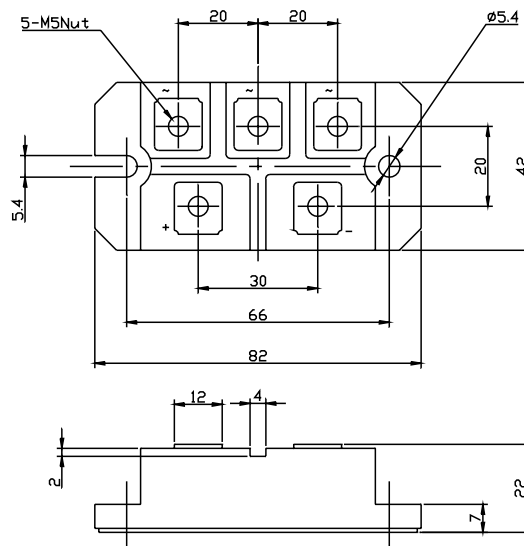
**50A Avg 1600 Volts**

**PT50S16**

■回路図 CIRCUIT



■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 | 耐圧クラス Grade | 単位<br>Unit |
|-------------------------------------------------------|--------------|-------------|------------|
|                                                       |              | PT50S16     |            |
| くり返しピーク逆電圧 *1<br>Repetitive Peak Reverse Voltage      | $V_{RRM}$    | 1600        | V          |
| 非くり返しピーク逆電圧 *1<br>Non Repetitive Peak Reverse Voltage | $V_{RSM}$    | 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       |
|--------------------------------------------------|------------------|------------------|------------------------------------------------------------------------------------|----|-------------------------|------------------|
| 平均出力電流<br>Average Rectified Output Current       |                  | $I_0$ (AV)       | 三相全波整流 $T_c = T_t = 87^{\circ}\text{C}$<br>3-Phase Full Wave, Rectified (Terminal) |    | 50                      | A                |
| サージ順電流 *1<br>Surge Forward Current               |                  | $I_{\text{FSM}}$ | 50Hz正弦半波, 1 サイクル, 非くり返し<br>Half Sine Wave, 1Pulse, Non-Repetitive                  |    | 450                     | A                |
| 電流二乗時間積 *1<br>I Squared t                        |                  | $I^2t$           | 2 ~10ms                                                                            |    | 1000                    | A <sup>2</sup> s |
| 動作接合温度範囲<br>Operating Junction Temperature Range |                  | $T_{\text{jw}}$  |                                                                                    |    | - 40 ~ + 125            | ℃                |
| 保存温度範囲<br>Storage Temperature Range              |                  | $T_{\text{stg}}$ |                                                                                    |    | - 40 ~ + 125            | ℃                |
| 絶縁耐圧<br>Isolation Voltage                        |                  | $V_{\text{iso}}$ | 端子 - 裏面ベース間, 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 | $F_{\text{tor}}$ | 推奨値<br>Recommended value                                                           | 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

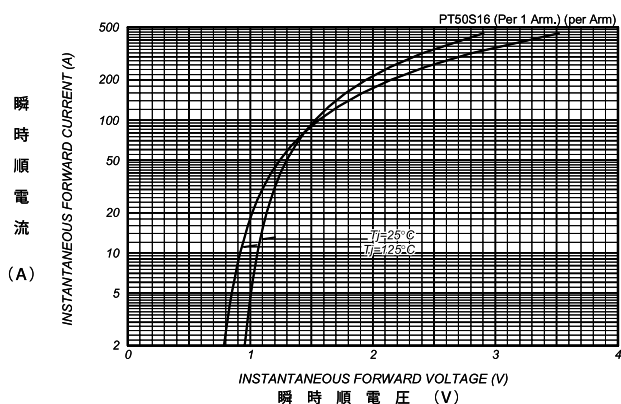
| 項 目<br>Parameter                  | 記号<br>Symbol  | 条 件<br>Conditions                                              | 特性値 (最大)<br>Maximum Value | 単位<br>Unit                |
|-----------------------------------|---------------|----------------------------------------------------------------|---------------------------|---------------------------|
| ピーク逆電流 *1<br>Peak Reverse Current | $I_{RM}$      | $T_j = 125^\circ\text{C}$ , $V_{RM} = V_{RRM}$                 | 10                        | mA                        |
| ピーク順電圧 *1<br>Peak Forward Voltage | $V_{FM}$      | $T_j = 25^\circ\text{C}$ , $I_{FM} = 50\text{A}$               | 1.3                       | V                         |
| 熱抵抗<br>Thermal Resistance         | $R_{th(j-c)}$ | 接合部 - ケース間 (トータル)<br>Junction to Case, Total                   | 0.3                       | $^\circ\text{C}/\text{W}$ |
| 接触熱抵抗<br>Thermal Resistance       | $R_{th(c-f)}$ | ケース - フィン間 (トータル), サーマルコンパウンド塗布<br>Case to Fin, Total, Greased | 0.06                      | $^\circ\text{C}/\text{W}$ |

質量…約180g  
Approximate Weight

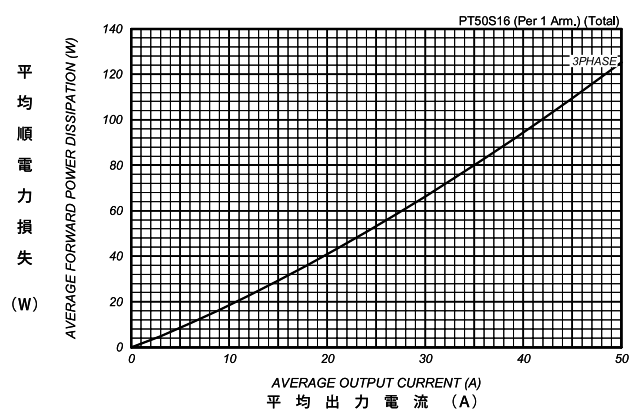
\*1 : 1 アーム当りの値 Value Per 1 Arm.

■ 定格・特性曲線

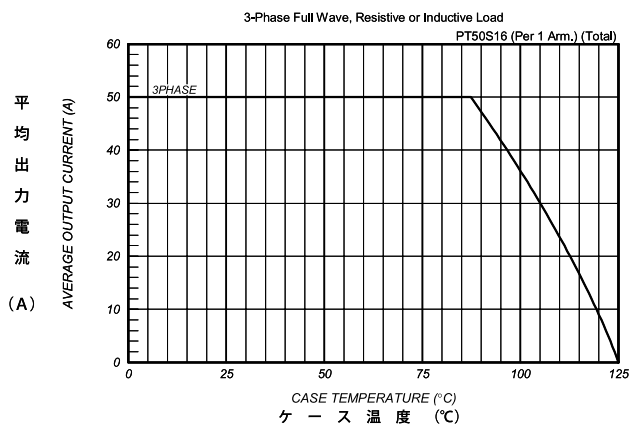
順電圧特性  
FORWARD CURRENT VS. VOLTAGE



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



平均出力電流 - ケース温度定格  
AVERAGE OUTPUT CURRENT VS. CASE TEMPERATURE



サージ順電流定格  
SURGE CURRENT RATINGS

