

**Features**

- Low forward voltage drop
- High reverse voltage
- Hermetic metal cases with ceramic insulators

**Typical Applications**

- All purpose high power rectifier diodes
- High power resistance welding equipment
- Non-controllable and half-controllable rectifiers
- Controlled rectifiers

**$I_{F(AV)}$  860A**  
 **$V_{RRM}$  200 ~ 1400V**  
 **$I_{FSM}$  8 kA**  
 **$I^2t$  320 10<sup>3</sup>A<sup>2</sup>S**

| SYMBOL        | CHARACTERISTIC                          | TEST CONDITIONS   |                        | T <sub>j</sub> (°C) | VALUE |      |       | UNIT                             |
|---------------|---|---|------------------------|---------------------|-------|------|-------|----------------------------------|
|               |   |   |                        |                     | Min   | Type | Max   |                                  |
| $I_{F(AV)}$   | Mean forward current                    | 180° half sine wave 50Hz<br>Double side cooled,   | $T_c=85^\circ\text{C}$ | 190                 |       |      | 860   | A                                |
| $V_{RRM}$     | Repetitive peak reverse voltage         | tp=10ms   |                        | 190                 | 200   |      | 1400  | V                                |
| $I_{RRM}$     | Repetitive peak current                 | at $V_{RRM}$  |                        | 190                 |       |      | 16    | mA                               |
| $I_{FSM}$     | Surge forward current                   | 10ms half sine wave   |                        | 190                 |       |      | 8     | kA                               |
| $I^2t$        | $I^2t$ for fusing coordination          | $V_R=0.6V_{RRM}$  |                        |                     |       |      | 320   | A <sup>2</sup> s*10 <sup>3</sup> |
| $V_{FO}$      | Threshold voltage                       |   |                        | 190                 |       |      | 0.80  | V                                |
| $r_F$         | Forward slope resistance                |   |                        |                     |       |      | 0.34  | mΩ                               |
| $V_{FM}$      | Peak forward voltage                    | $I_{FM}=600\text{A}, F=5.0\text{kN}$  |                        | 25                  |       |      | 1.80  | V                                |
| $Q_{rr}$      | Recovery charge                         | $I_{FM}=1000\text{A}, tp=4000\mu\text{s}, di/dt=-20\text{A}/\mu\text{s}, V_R=100\text{V}$ |                        | 190                 |       | 1400 |       | μC                               |
| $R_{th(j-c)}$ | Thermal resistance<br>Junction to case  | D.C. Double side cooled<br>Clamping force 5.0kN   |                        |                     |       |      | 0.080 | °C/W                             |
| $R_{th(c-h)}$ | Thermal resistance<br>case to heat sink |   |                        |                     |       |      | 0.020 |                                  |
| $F_m$         | Mounting force                          |   |                        |                     | 3.3   |      | 5.5   | kN                               |
| $T_{vj}$      | Junction temperature                    |   |                        |                     | -40   |      | 190   | °C                               |
| $T_{stg}$     | Stored temperature                      |   |                        |                     | -40   |      | 190   | °C                               |
| $W_t$         | Weight                                  |   |                        |                     |       | 60   |       | g                                |
| Outline       | P32                                     |   |                        |                     |       |      |       |                                  |

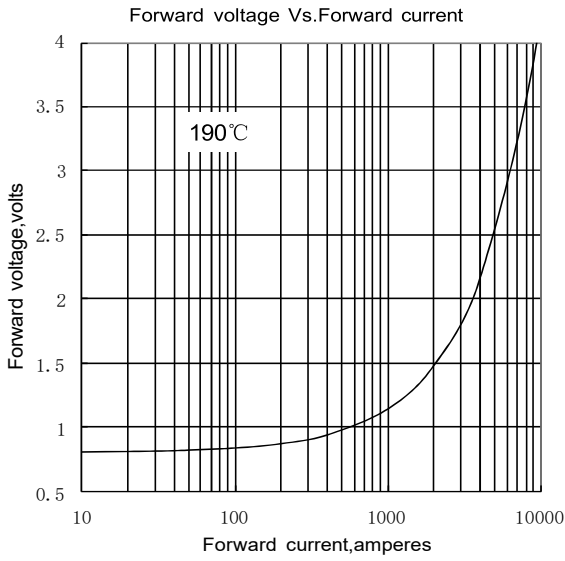


Fig1

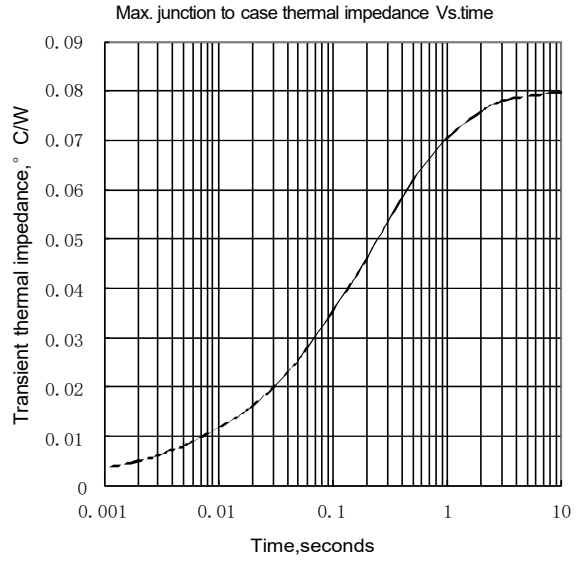


Fig2

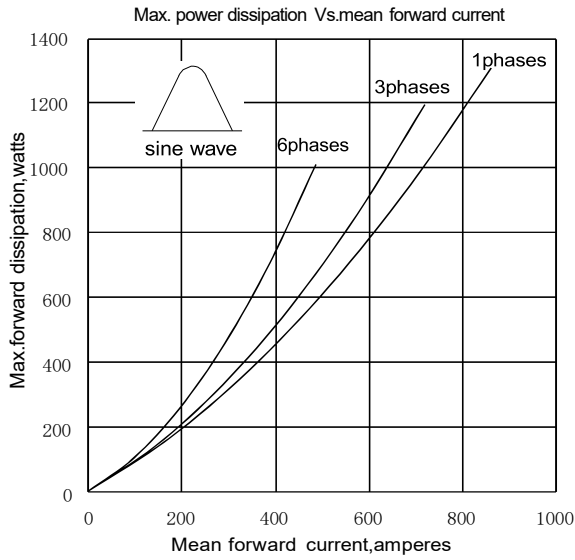


Fig3

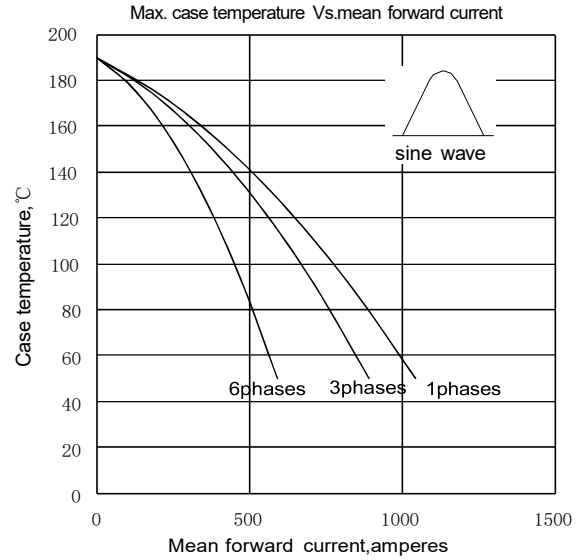


Fig4

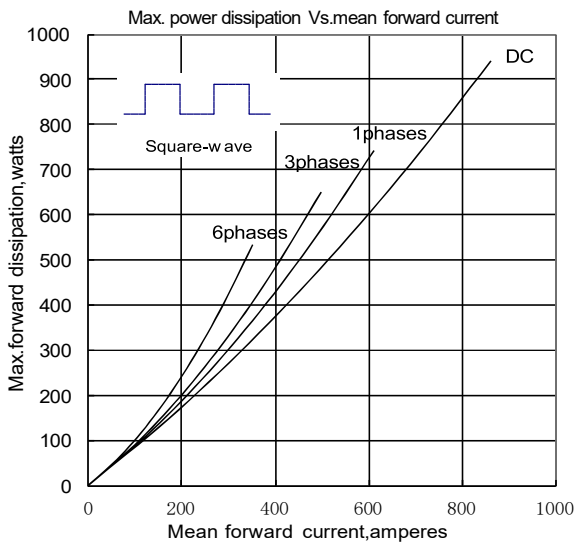


Fig5

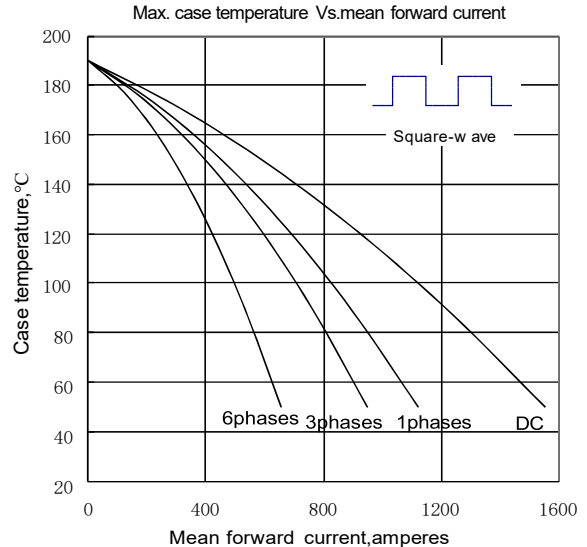


Fig6

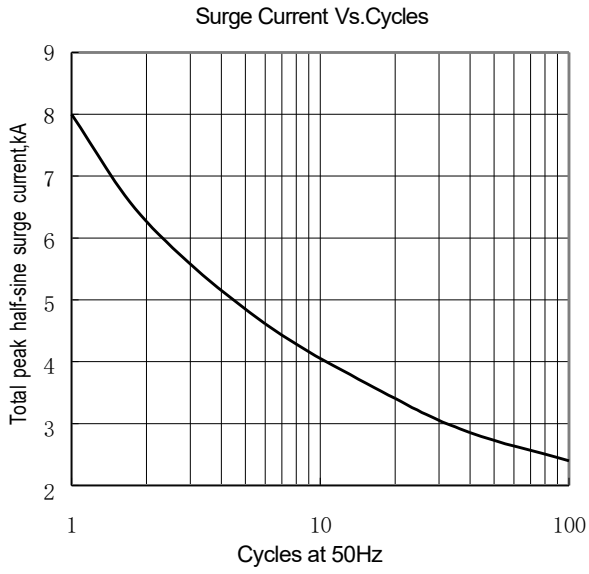


Fig.7

Outline:

