

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

| | |
|-------------|---|
| $I_{F(AV)}$ | 5060A |
| V_{RRM} | 2100 ~ 3000V |
| I_{FSM} | 63 kA |
| I^2t | 19845 10³A²S |

| SYMBOL | CHARACTERISTIC | TEST CONDITIONS | | T _J (°C) | VALUE | | | UNIT |
|---------------|--|--|----------------------|---------------------|-------|------|-------|----------------------------------|
| | | | | | Min | Type | Max | |
| $I_{F(AV)}$ | Mean forward current | 180° half sine wave 50Hz Double side cooled, | T _C =85°C | 160 | | | 5060 | A |
| V_{RRM} | Repetitive peak reverse voltage | tp=10ms | | 160 | 2100 | | 3000 | V |
| I_{RRM} | Repetitive peak current | At V_{RRM} | | 160 | | | 250 | mA |
| I_{FSM} | Surge forward current | 10ms half sine wave | | 160 | | | 63 | kA |
| I^2t | I ² t for fusing coordination | $V_R=0.6V_{RRM}$ | | | | | 19845 | A ² s*10 ³ |
| V_{FO} | Threshold voltage | | | 160 | | | 0.90 | V |
| r_F | Forward slope resistance | | | | | | 0.098 | mΩ |
| V_{FM} | Peak forward voltage | $I_{FM}=5000A, F=70kN$ | | 25 | | | 1.80 | V |
| Q_{rr} | Recovery charge | $I_{FM}=2000A, tp=4000\mu s, di/dt=-20A/\mu s, V_R=100V$ | | 160 | | 7000 | | μC |
| $R_{th(j-c)}$ | Thermal resistance Junction to case | D.C. Double side cooled Clamping force 70kN | | | | | 0.007 | °C/W |
| $R_{th(c-h)}$ | Thermal resistance case to heat sink | | | | | | 0.002 | |
| F_m | Mounting force | | | | 63 | | 84 | kN |
| T_{vj} | Junction temperature | | | | -40 | | 160 | °C |
| T_{stg} | Stored temperature | | | | -40 | | 160 | °C |
| W_t | Weight | | | | | 1390 | | g |
| Outline | P47 | | | | | | | |

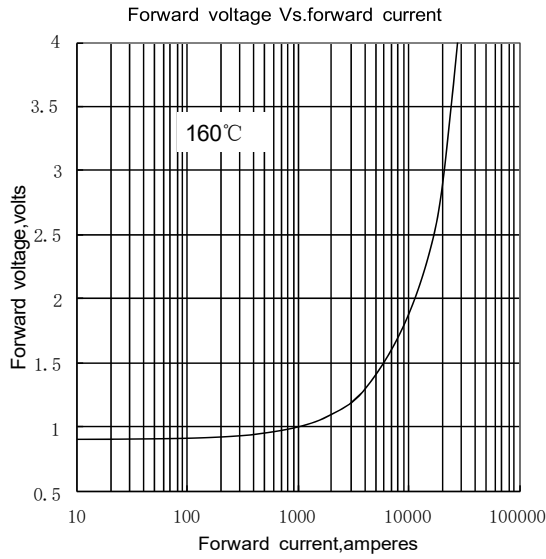


Fig.1

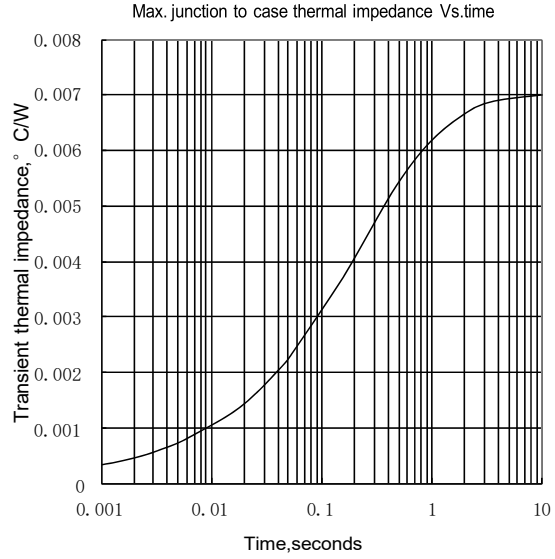


Fig.2

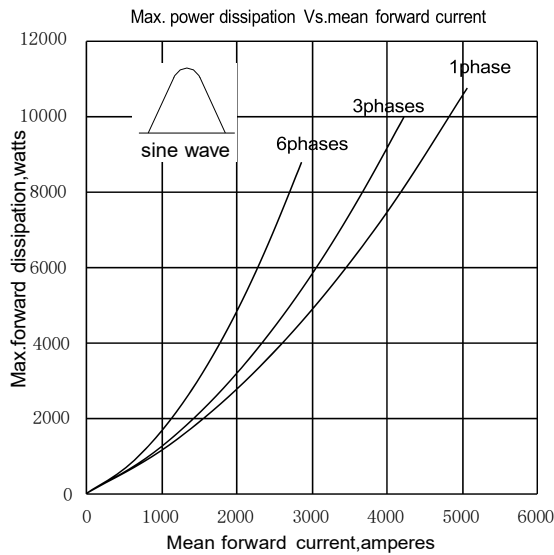


Fig.3

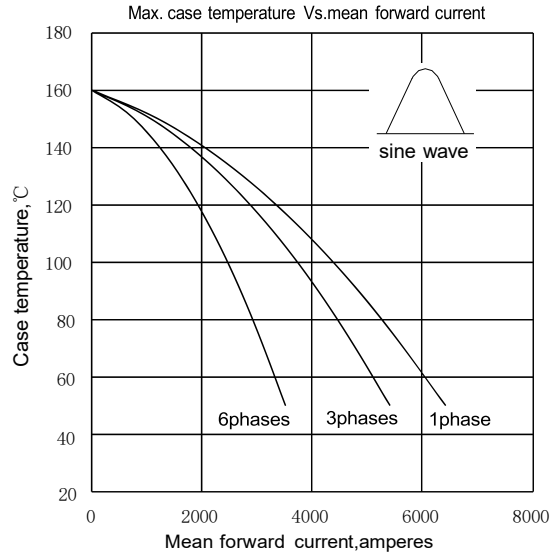


Fig.4

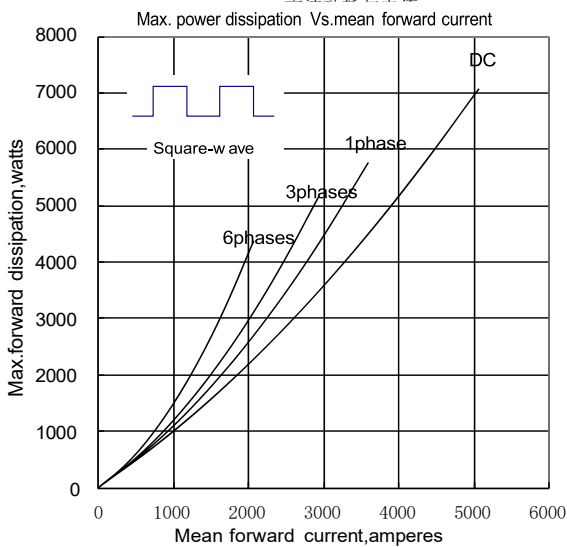


Fig.5

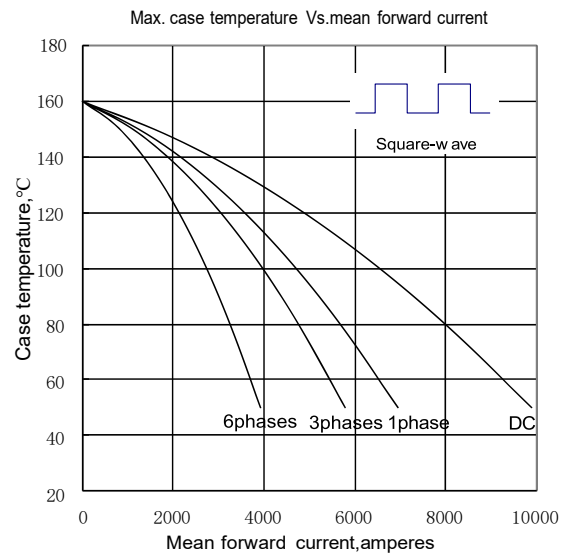


Fig.6

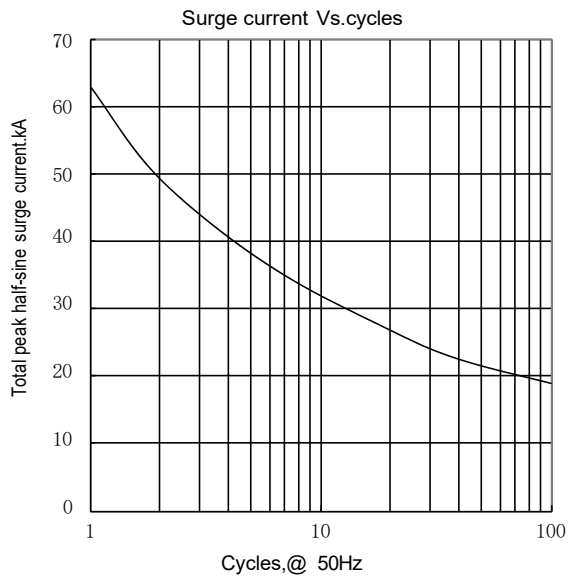


Fig.7

Outline:

