

Features

- Heat transfer through aluminium nitride ceramic isolated metal baseplate
- Precious metal pressure contacts for high reliability
- Thyristor with amplifying gate

Typical Applications

- DC motor control
- Temperature control
- Professional light dimming

Maximum Ratings

| Symbol | Condition | Ratings | Unit |
|-------------------|--|-------------|-------------------|
| $I_{T(AV)}$ | Single phase, half wave, sin 180° conduction ; $T_C=85^{\circ}C$ | 156 | A |
| I_{TRMS} | Single phase, half wave, sin 180° conduction | 250 | A |
| I_{TSM} | $T_j = T_{j MAX}$ | 5 | kA |
| I^2t | $T_j = T_{j MAX}$ | 125 | kA ² S |
| V_{DRM}/V_{RRM} | $T_j = T_{j MAX}$ | 1600 | V |
| di/dt | non-repetitive | 200 | A/us |
| V_{iso} | A.C.1minute/1S | 3000/3600 | V |
| T_j | | -40 ~ + 125 | °C |
| T_{stg} | | -40 ~ + 125 | °C |
| W | About | 165 | g |

Electrical Characteristics

| Symbol | Condition | Ratings | Unit |
|---------------------|---|-----------|------|
| I_{DRM} / I_{RRM} | At V_{DRM} , Single phase, half wave, $T_j = T_{j MAX}$ | 40 | mA |
| V_{TM} | On-State Current 500A, $T_j = 25^{\circ}C$ | 1.6 | V |
| $V_{T(TO)}$ | $T_j = T_{j MAX}$ | 0.85 | V |
| r_T | $T_j = T_{j MAX}$ | 1.5 | mΩ |
| R_{K1G1} | | - | Ω |
| R_{K2G2} | | - | Ω |
| t_{gd} | $T_j = 25^{\circ}C; V_D = 0.4V_{DRM}; I_{TM} = I_{TAV}$ | 1 | us |
| t_q | $dv_D/dt = 50V/us; T_j = T_{j MAX}; I_{TM} = I_{TAV}$ | 150 | us |
| I_{GT}/V_{GT} | $T_j = 25^{\circ}C, I_T = 1A, V_D = 6V$ | 150 / 2.0 | mA/V |
| V_{GD} | $V_D = 67\%V_{DRM}$ | 0.25 | V |
| DV/DT | $V_D = 67\%V_{DRM}$ | 1000 | V/us |
| I_H | $T_j = 25^{\circ}C$ | 400 | mA |
| I_L | $T_j = 25^{\circ}C$ | 1000 | mA |
| $R_{th(j-c)}$ | Thermal resistance Junction to case; per module | 0.0085 | K/W |
| $R_{th(c-h)}$ | Thermal resistance case to heatsink; per module | 0.005 | K/W |

Outline Drawing

