

isc Thyristors

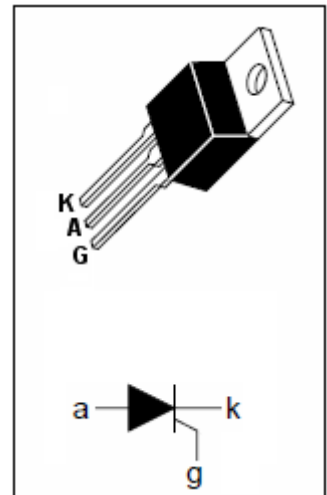
TIC106M

APPLICATIONS

- 5A continuous on-state current
- 30A surge-current
- Glass passivated
- Max I_{GT} of 200 μ A

ABSOLUTE MAXIMUM RATINGS($T_a=25^\circ\text{C}$)

| SYMBOL | PARAMETER | MIN | UNIT |
|---------------|---|------------|--------------------|
| V_{DRM} | Repetitive peak off-state voltage | 600 | V |
| V_{RRM} | Repetitive peak reverse voltage | 600 | V |
| $I_{T(AV)}$ | On-state current $T_c=80^\circ\text{C}$ | 3.2 | A |
| $I_{T(RMS)}$ | RMS on-state current $T_c=80^\circ\text{C}$ | 5 | A |
| I_{TM} | Surge peak on-state current | 30 | A |
| P_{GM} | Peak gate power $P_w \leq 300 \mu$ s | 1.3 | W |
| $P_{G(AV)}$ | Average gate power | 0.3 | W |
| T_j | Operating Junction temperature | 110 | $^\circ\text{C}$ |
| T_{stg} | Storage temperature | -40 ~ +125 | $^\circ\text{C}$ |
| $R_{th(j-c)}$ | Thermal resistance, junction to case | 1.9 | $^\circ\text{C/W}$ |
| $R_{th(j-a)}$ | Thermal resistance, junction to ambient | 62.5 | $^\circ\text{C/W}$ |

ELECTRICAL CHARACTERISTICS ($T_c=25^\circ\text{C}$ unless otherwise specified)

| SYMBOL | PARAMETER | CONDITIONS | MIN | TYP. | MAX | UNIT |
|-----------|-----------------------------------|---|-----|------|------------|---------|
| I_{RRM} | Repetitive peak reverse current | $V_{RM}=V_{RRM}$, $V_{RM}=V_{RRM}$, $T_j=110^\circ\text{C}$ | | | 0.4 1.0 | mA |
| I_{DRM} | Repetitive peak off-state current | $V_{DM}=V_{DRM}$, $V_{DM}=V_{DRM}$, $T_j=110^\circ\text{C}$ | | | 0.4 1.0 | mA |
| V_{TM} | On-state voltage | $I_{TM}=5\text{A}$ | | | 1.7 | V |
| I_{GT} | Gate-trigger current | $V_{AA}=6\text{V}$; $R_L=1\text{k}\Omega$ | | | 200 | μ A |
| V_{GT} | Gate-trigger voltage | $V_{AA}=6\text{V}$; $R_L=100\Omega$ | | | 1.0 | V |
| I_H | Holding current | $V_{AA}=6\text{V}$; $R_{GK}=1\text{k}\Omega$, $I_T=10\text{mA}$ | | | 5 | mA |