

**Thyristors**

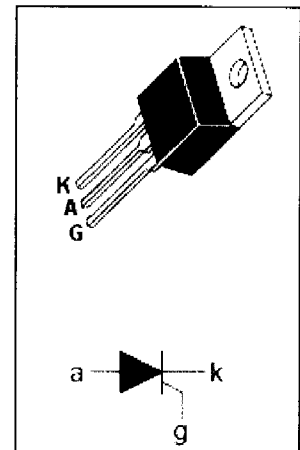
**TIC126D**

**APPLICATIONS**

- 12A continuous on-state current
- 100A surge-current
- Glass passivated
- Max  $I_{GT}$  of 20mA

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

| SYMBOL        | PARAMETER                                   | MIN        | UNIT               |
|---------------|---|------------|--------------------|
| $V_{DRM}$     | Repetitive peak off-state voltage           | 400        | V                  |
| $V_{RRM}$     | Repetitive peak reverse voltage             | 400        | V                  |
| $I_{T(AV)}$   | On-state current $T_c=80^\circ\text{C}$     | 7.5        | A                  |
| $I_{T(RMS)}$  | RMS on-state current $T_c=80^\circ\text{C}$ | 12         | A                  |
| $I_{TM}$      | Surge peak on-state current                 | 100        | A                  |
| $P_{GM}$      | Peak gate power $P_W \leq 300 \mu\text{s}$  | 5          | W                  |
| $P_{G(AV)}$   | Average gate power                          | 1          | 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        | 2.4        | $^\circ\text{C/W}$ |
| $R_{th(j-a)}$ | 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   | $V_{RM}=V_{RRM}$ , $T_j=110^\circ\text{C}$                          |     |      | 2.0 | mA   |
| $I_{DRM}$ | Repetitive peak off-state current | $V_{RM}=V_{RRM}$ , $T_j=110^\circ\text{C}$                          |     |      | 2.0 | mA   |
| $V_{TM}$  | On-state voltage                  | $I_{TM}=12\text{A}$   |     |      | 1.4 | V    |
| $I_{GT}$  | Gate-trigger current              | $V_{AA}=6\text{V}$ ; $R_L=100 \Omega$                               |     |      | 20  | mA   |
| $V_{GT}$  | Gate-trigger voltage              | $V_{AA}=6\text{V}$ ; $R_L=100 \Omega$                               |     |      | 1.5 | V    |
| $I_H$     | Holding current                   | $V_{AA}=6\text{V}$ ; $R_{GK}=1\text{k} \Omega$ , $I_T=100\text{mA}$ |     |      | 40  | mA   |

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