

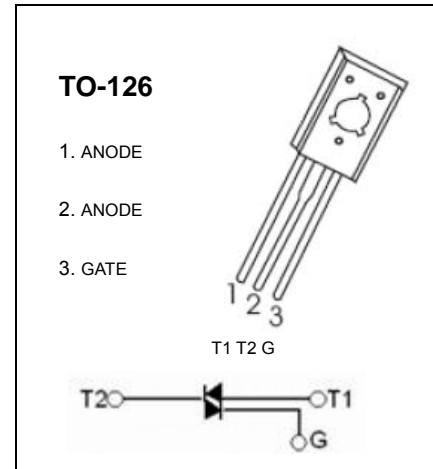
TO-126 Plastic-Encapsulate Thyristors

BT134 TRIAC

FEATURES

Glass passivated triacs in a plastic, intended for use in applications requiring high bidirectional transient and blocking voltage capability and high thermal cycling performance.

Typical applications include motor control, industrial and domestic lighting , heating and static switching.



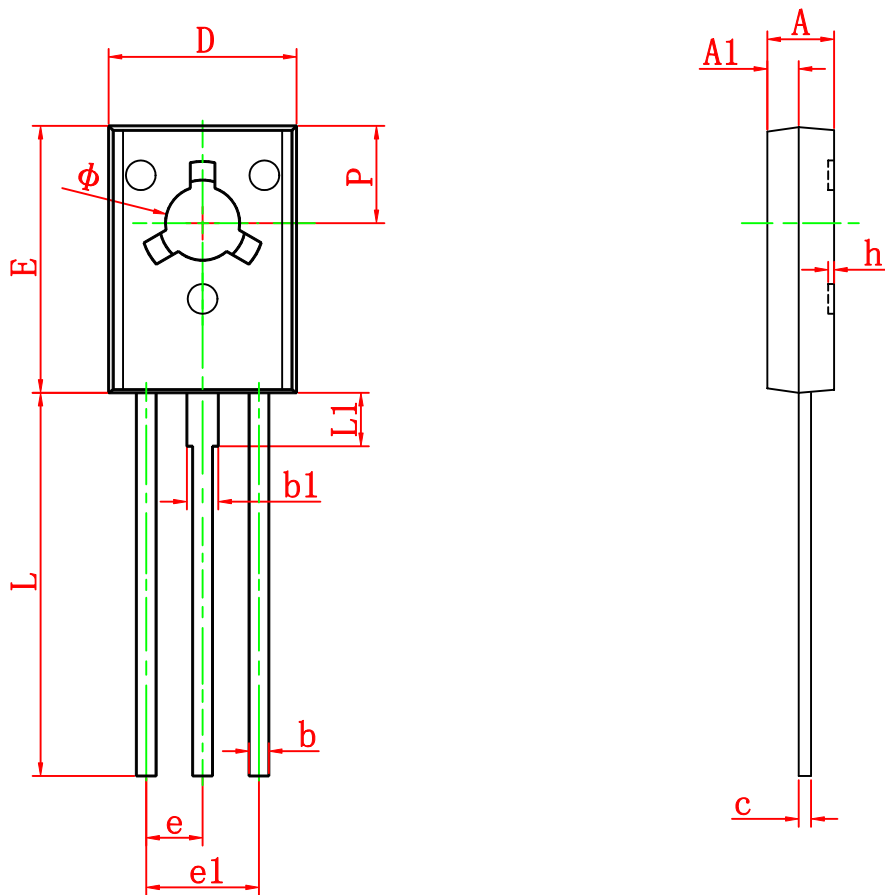
MAXIMUM RATINGS($T_a=25^{\circ}\text{C}$ unless otherwise noted)

| Symbol | Parameter | Test conditions | Value | Unit |
|-------------------|---|--|---------|----------------------|
| V_{DRM}/V_{RRM} | Repetitive peak off-state/reverse voltages | | 600 | V |
| $I_{T(RMS)}$ | RMS on-state current Non-repetitive peak on-state current | full sine wave ; $T_{mb} \leq 107^{\circ}\text{C}$ | 4 | A |
| I^2t | I^2t for fusing | $t=10\text{ms}$ | 3.1 | A^2s |
| di_T/dt | Repetitive rate of rise of on-state current after tiggering | $di_G/dt=0.2\text{A/us}$ | | |
| | | T2+G+ | 50 | A/us |
| | | T2+G- | 50 | A/us |
| | | T2-G- | 50 | A/us |
| | | T2-G+ | 10 | A/us |
| I_{GM} | Peak gate current | | 2 | A |
| V_{GM} | Peak gate voltage | | 5 | V |
| P_{GM} | Peak gate power | | 5 | W |
| $P_{G(AV)}$ | Average gate power | over any 20 ms period | 0.5 | W |
| T_{stg} | Storage Temperature | | -40~150 | $^{\circ}\text{C}$ |
| T_j | Operating junction Temperature | | 125 | $^{\circ}\text{C}$ |

ELECTRICAL CHARACTERISTICS(T_a=25°C unless otherwise specified)

| Parameter | Symbol | Test conditions | Min | Typ | Max | Unit | |
|--|----------------------|--|-----------------------|-----|-----|------|----|
| Rated repetitive peak off-state current | I _{DRM} | V _D =V _{DRM} | | | 10 | μ A | |
| On-state voltage | V _{TM} | I _T =3A | | 1.4 | 1.7 | V | |
| Gate trigger current | I _{GT} | T ₂ (+), G(+) | V _D =12V | | | 7 | mA |
| | | T ₂ (+), G(-) | | | | 7 | mA |
| | | T ₂ (-), G(-) | R _L =100 Ω | | | 7 | mA |
| | | T ₂ (-), G(+) | | | | 20 | mA |
| Gate trigger voltage | V _{GT} | T ₂ (+), G(+) | V _D =12V | | | 1.45 | V |
| | | T ₂ (+), G(-) | | | | 1.45 | V |
| | | T ₂ (-), G(-) | R _L =100 Ω | | | 1.45 | V |
| | | T ₂ (-), G(+) | | | | 2 | V |
| Holding current | I _H | I _T =100mA I _G =20mA | | | 15 | mA | |
| Thermal Resistance Junction to mounting base | R _{th j-mb} | full cycle | | | 3.0 | K/W | |
| | | half cycle | | | 3.7 | K/W | |
| Thermal Resistance Junction to ambient | R _{th j-a} | In free air | | 60 | | K/W | |

TO-126 Package Outline Dimensions



| Symbol | Dimensions In Millimeters | | Dimensions In Inches | |
|--------|---------------------------|--------|----------------------|-------|
| | Min | Max | Min | Max |
| A | 2.500 | 2.900 | 0.098 | 0.114 |
| A1 | 1.100 | 1.500 | 0.043 | 0.059 |
| b | 0.660 | 0.860 | 0.026 | 0.034 |
| b1 | 1.170 | 1.370 | 0.046 | 0.054 |
| c | 0.450 | 0.600 | 0.018 | 0.024 |
| D | 7.400 | 7.800 | 0.291 | 0.307 |
| E | 10.600 | 11.000 | 0.417 | 0.433 |
| e | 2.290 TYP | | 0.090 TYP | |
| e1 | 4.480 | 4.680 | 0.176 | 0.184 |
| h | 0.000 | 0.300 | 0.000 | 0.012 |
| L | 15.300 | 15.700 | 0.602 | 0.618 |
| L1 | 2.100 | 2.300 | 0.083 | 0.091 |
| P | 3.900 | 4.100 | 0.154 | 0.161 |
| Φ | 3.000 | 3.200 | 0.118 | 0.126 |