# BT134 Series
# 4A TRIACs
# 4 Quadrants TRIACs

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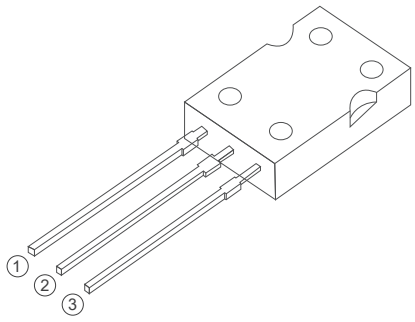
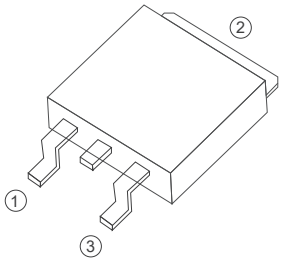
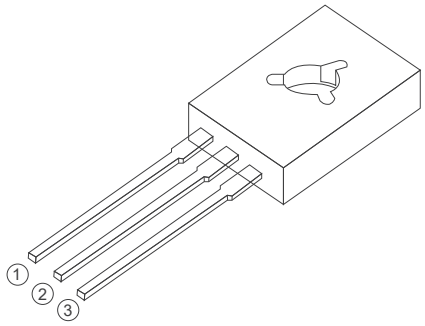



SOT-82(TO-126P)




TO-252

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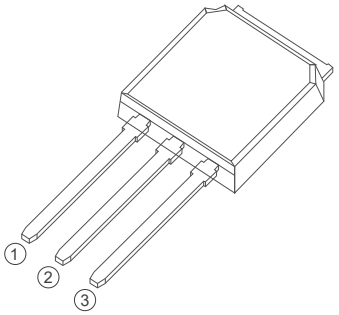


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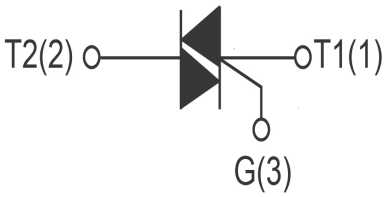



## FEATURES

› IT(RMS): 4A › VGT: 1.5V › VDRM VRRM:800V

## APPLICATIONS

Washing machine,vacuums, massager,solid state relay， AC Motor speed regulation and so on.

## Absolute Maximum Ratings (Tj=25°C unless otherwise specifed)

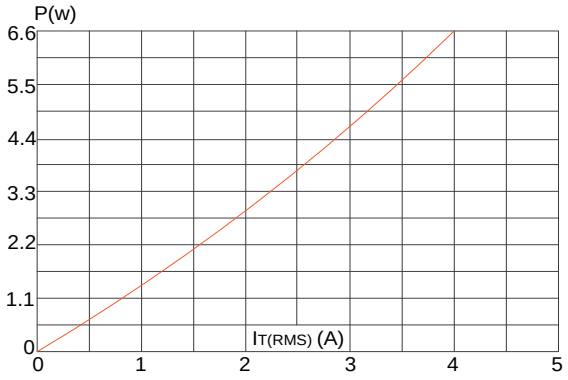
| Symbol | Parameter | Conditions | Ratings | Unit |
|---|---|---|---|---|
| VDRM VRRM | Repetitive Peak Off-State Voltage | BT134-600 | 600 | V |
| IT(RMS) | R.M.S On-State Current | Tc=110°C | 4 | A |
| ITSM | Surge On-State Current | tp=16.7ms/tp=10ms | 25/27 | A |
| $I^2t$ | $I^2t$ for fusing | Tp=10ms | 3.1 | $A^2s$ |
| PG(AV) | Average Gate Power Dissipation | Tj=125°C | 0.5 | W |
| IGM | Peak Gate Current | tp=20us Tj=125°C | 2 | A |
| Tj | Operating Junction Temperature | | ~40~125 | °C |
| TSTG | Storage Temperature | | ~40~150 | °C |

## Electrical Characteristics (Tj=25°C unless otherwise specifed)

| Symbol | Parameter | | Test Conditions | Value | | Unit |
|---|---|---|---|---|---|---|
| | | | | D | E | |
| IDRM | Repetitive Peak Off-State Current | | Tj=25°C | ≤10 | | uA |
| | | | Tj=125°C | ≤0.5 | | mA |
| IRRM | Repetitive Peak Reverse Current | | Tj=25°C | ≤10 | | uA |
| | | | Tj=125°C | ≤0.5 | | mA |
| VTM | Forward "on" voltage | | IT=5A tp=380us | ≤1.7 | | V |
| VGD | gate non-trigger voltage | | VD=12V,Tj=125°C | ≥0.2 | | V |
| IH | Holding current | | VD=12V ,IGT=0.1A | ≤10 | ≤15 | mA |
| VGT | Gate trigger voltage | | VD=12V | ≤1.5 | | V |
| IGT | Gate trigger current | I,II,III | VD=12V,IGT=0.1A | ≤5 | ≤10 | mA |
| | | IV | | ≤10 | ≤25 | mA |
| di/dt | Critical-rate of rise of commutation current. | I,II,III | IT=6A ,IGT==0.2A, dIg/dt=0.2A/us | ≥50 | | A/us |
| | | IV | | ≥10 | | A/us |
| dv/dt | Critical-rate of rise of commutation voltage | | TJ=125°C VD=2/3VDRM Gate open circuit | ≥5 | ≥50 | V/us |

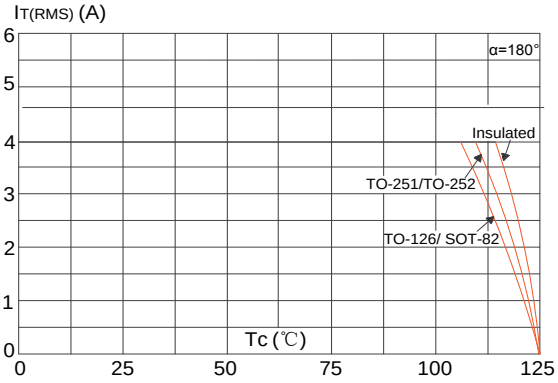
## FIG1

Maximum power dissipation versus RMS on-state current



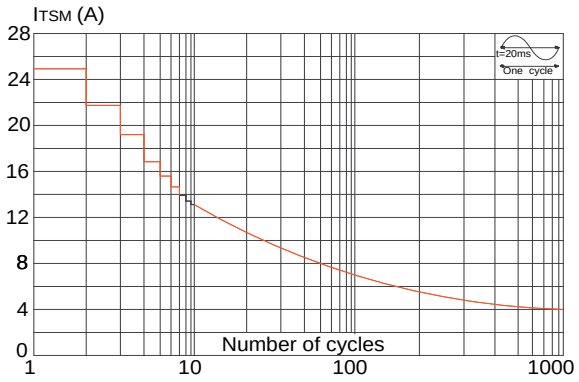

## FIG2

RMS on-state current versus case temperature



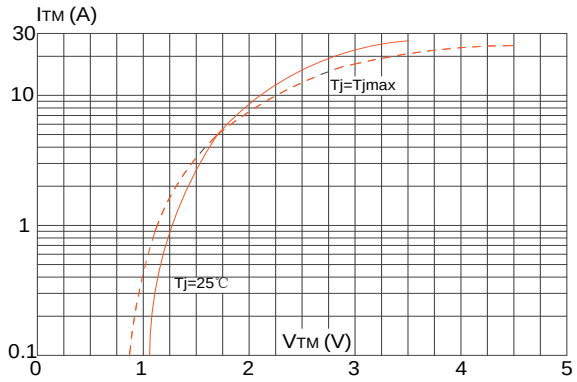

## FIG3

Surge peak on-state current versus number of cycles



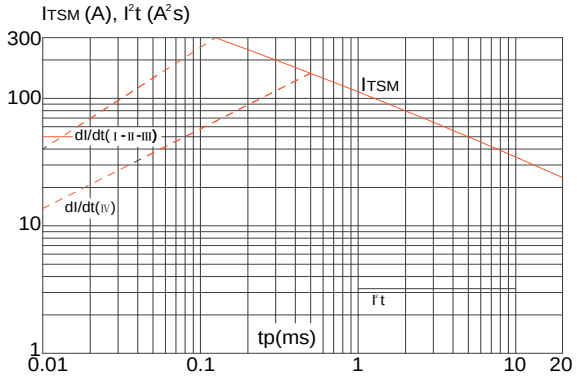

## FIG4

On-state characteristics (maximum values)



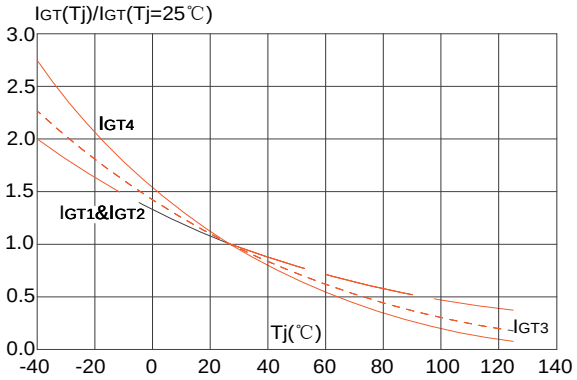

## FIG5

Non-repetitive surge peak on-state current for a sinusoidal pulse with width tp<20ms, and corresponging value of $I^2t$ (dI/dt < 100A/μs)



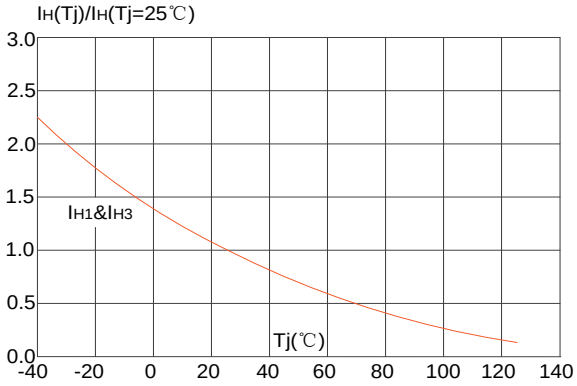

## FIG6

**FIG.6:** Relative variations of gate trigger current, holding current and latching current versus junction temperature



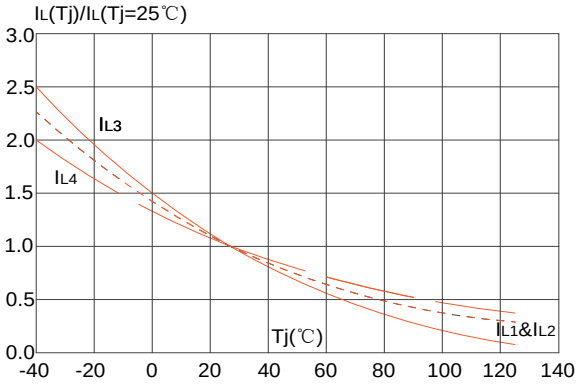
## FIG7

**FIG.7:** Relative variations of holding current versus junction temperature

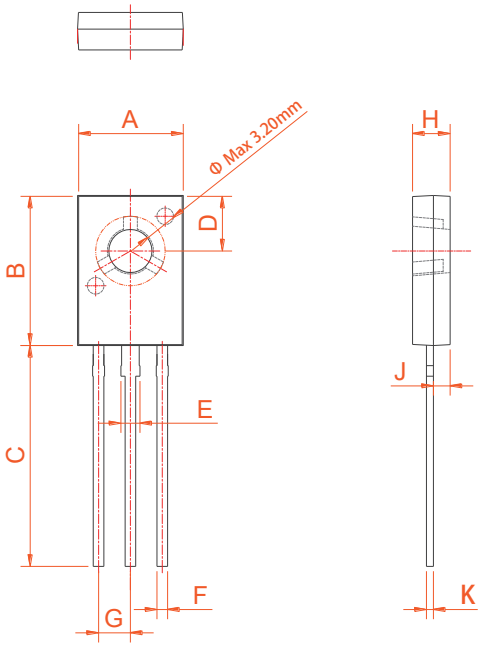



## FIG8

**FIG.8:** Relative variations of latching current versus junction temperature




## PACKAGE MECHANICAL DATA

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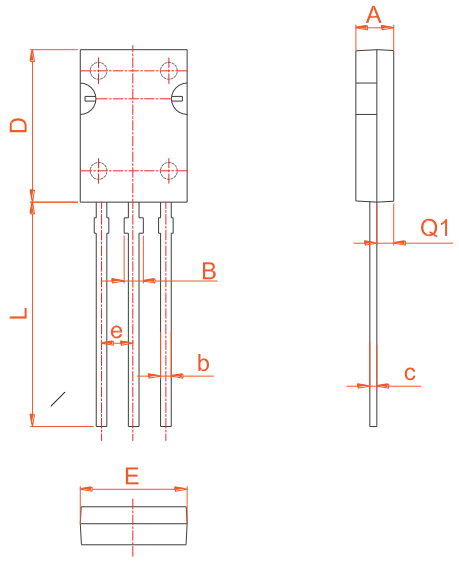
| Ref. | Dimensions | | | | | |
|---|---|---|---|---|---|---|
| | Millimeters | | | Inches | | |
| | Min. | Typ. | Max. | Min. | Typ. | Max. |
| A | 7.40 | | 7.80 | 0.291 | | 0.307 |
| B | 10.6 | | 11.2 | 0.417 | | 0.441 |
| C | 15.3 | | 16.3 | 0.602 | | 0.642 |
| D | 3.90 | | 4.10 | 0.154 | | 0.161 |
| E | 1.17 | | 1.47 | 0.046 | | 0.058 |
| F | 0.66 | | 0.86 | 0.026 | | 0.034 |
| G | | 2.29 | | | 0.090 | |
| H | 2.50 | | 2.90 | 0.098 | | 0.114 |
| J | 1.10 | | 1.50 | 0.043 | | 0.059 |
| K | 0.45 | | 0.60 | 0.018 | | 0.024 |

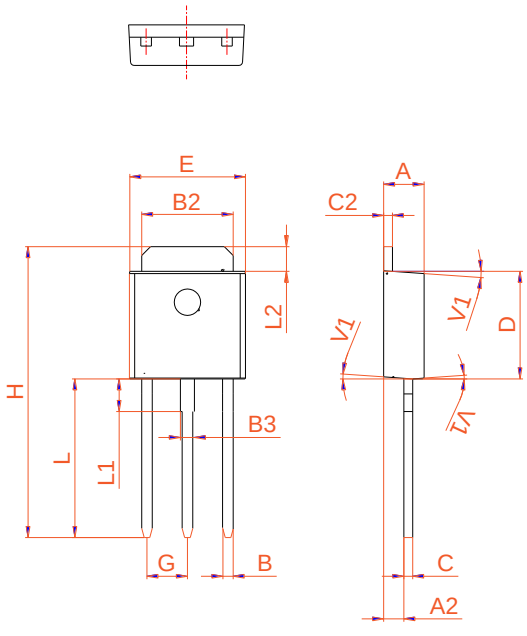
## PACKAGE MECHANICAL DATA




SOT-82

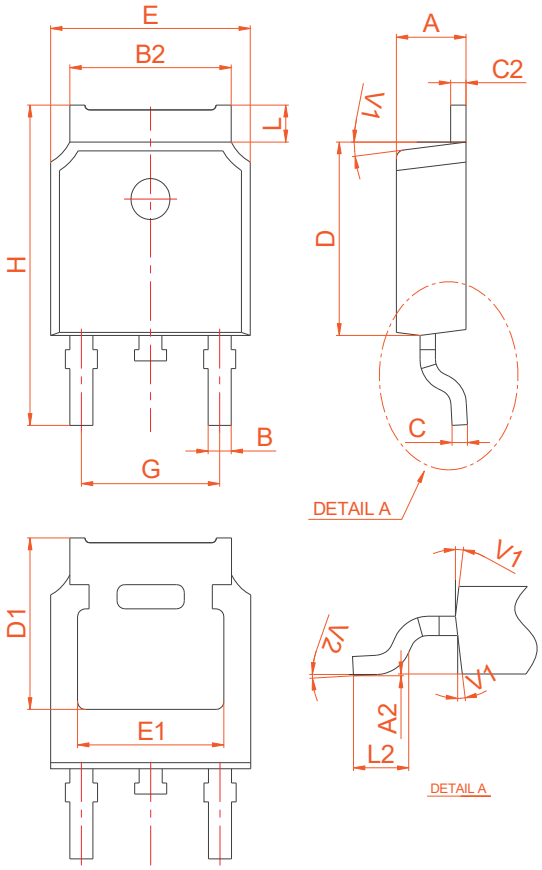
| Ref. | Dimensions | | | | | |
|---|---|---|---|---|---|---|
| | Millimeters | | | Inches | | |
| | Min. | Typ. | Max. | Min. | Typ. | Max. |
| A | 2.45 | 2.55 | 2.65 | 0.096 | 0.100 | 0.104 |
| b | 0.71 | 0.76 | 0.81 | 0.028 | 0.030 | 0.032 |
| B | 1.27 | 1.37 | 1.45 | 0.050 | 0.054 | 0.057 |
| c | 0.48 | 0.50 | 0.52 | 0.019 | 0.020 | 0.021 |
| D | 10.60 | 10.80 | 11.00 | 0.417 | 0.425 | 0.433 |
| E | 7.30 | | 7.70 | 0.287 | | 0.303 |
| e | 2.24 | 2.29 | 2.34 | 0.088 | 0.090 | 0.092 |
| L | 15.30 | 15.60 | 15.90 | 0.602 | 0.614 | 0.626 |
| Q1 | 1.17 | 1.27 | 1.37 | 0.046 | 0.050 | 0.054 |

| Ref. | Dimensions | | | | | |
|---|---|---|---|---|---|---|
| | Millimeters | | | Inches | | |
| | Min. | Typ. | Max. | Min. | Typ. | Max. |
| A | 2.20 | | 2.40 | 0.086 | | 0.095 |
| A2 | 0.90 | | 1.20 | 0.035 | | 0.047 |
| B | 0.55 | | 0.65 | 0.022 | | 0.026 |
| B2 | 5.10 | | 5.40 | 0.200 | | 0.213 |
| B3 | 0.76 | | 0.85 | 0.030 | | 0.033 |
| C | 0.45 | | 0.62 | 0.018 | | 0.024 |
| C2 | 0.48 | | 0.62 | 0.019 | | 0.024 |
| D | 6.00 | | 6.20 | 0.236 | | 0.244 |
| E | 6.40 | | 6.70 | 0.252 | | 0.264 |
| G | | 2.30 | | | 0.091 | |
| H | 16.0 | | 17.0 | 0.630 | | 0.669 |
| L | 8.90 | | 9.40 | 0.350 | | 0.370 |
| L1 | 1.80 | | 1.90 | 0.071 | | 0.075 |
| L2 | 1.37 | | 1.50 | 0.054 | | 0.059 |
| V1 | | 4° | | | 4° | |




TO-251

## PACKAGE MECHANICAL DATA




TO-252

| Ref. | Dimensions | | | | | |
|---|---|---|---|---|---|---|
| | Millimeters | | | Inches | | |
| | Min. | Typ. | Max. | Min. | Typ. | Max. |
| A | 2.20 | | 2.40 | 0.086 | | 0.095 |
| A2 | 0.03 | | 0.23 | 0.001 | | 0.009 |
| B | 0.55 | | 0.65 | 0.022 | | 0.026 |
| B2 | 5.10 | | 5.40 | 0.200 | | 0.213 |
| C | 0.45 | | 0.55 | 0.018 | | 0.022 |
| C2 | 2.70 | | 2.90 | 0.106 | | 0.114 |
| D | 6.00 | | 6.20 | 0.236 | | 0.244 |
| E | 6.40 | | 6.70 | 0.252 | | 0.264 |
| G | 4.40 | | 4.70 | 0.173 | | 0.185 |
| H | 9.35 | | 10.6 | 0.368 | | 0.417 |
| L1 | 1.30 | | 1.70 | 0.051 | | 0.067 |
| L2 | 1.37 | | 1.50 | 0.054 | | 0.059 |
| L3 | | 0.8 | | | 0.031 | |
| L4 | | 0.8 | | | 0.031 | |
| V1 | | 4° | | | 4° | |
| V2 | 0° | | 8° | 0° | | 8° |

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