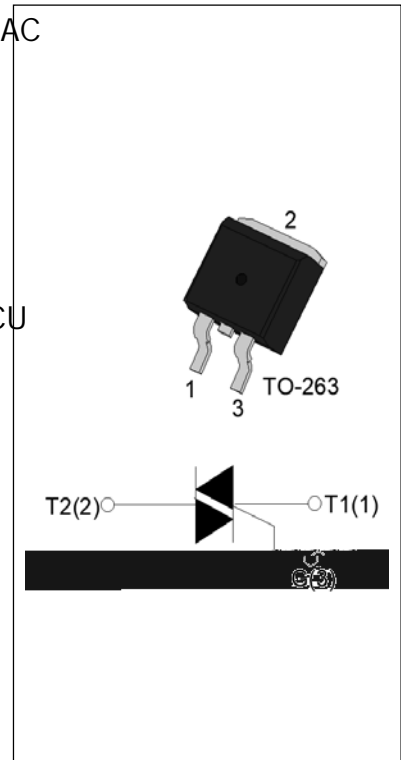




DESCRIPTION:

The JST12E-800TW triac is suitable for general purpose AC switching. It can be used as an ON/OFF function in applications such as heating regulation, induction motor starting circuits, for phase control operation in light dimmers, motor speed controllers. JST12E-800TW snubberless triac is especially recommended for use on inductive loads. It can be driven directly through the MCU port. Package TQ263 is RoHS compliant.



MAIN FEATURES

| Symbol | Value | Unit |
|---------------------|-------|------|
| $I_{T(RMS)}$ | 12 | A |
| V_{DRM} / V_{RRM} | 800 | V |
| $I_{GT} / /$ | 5/5/5 | mA |

ABSOLUTE MAXIMUM RATINGS

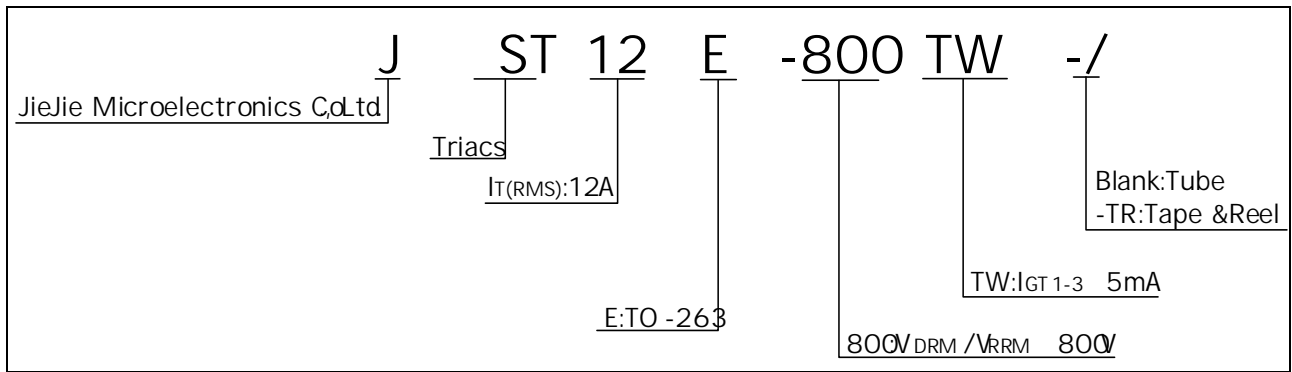
| Parameter | Symbol | Value | Unit |
|---|--------------|---------|--------|
| Storage junction temperature range | T_{stg} | -40-150 | |
| Operating junction temperature range | T_j | -40-125 | |
| Repetitive peak off-state voltage ($f=25$) | V_{DRM} | 800 | V |
| Repetitive peak reverse voltage ($f=25$) | V_{RRM} | 800 | V |
| RMS on-state current ($T=103$) | $I_{T(RMS)}$ | 12 | A |
| Non repetitive surge peak on-state current (full cycle, $p \le 20ms$, $f=25$) | I_{TSM} | 120 | A |
| Non repetitive surge peak on-state current (full cycle, $p \le 16.6ms$, $f=25$) | | 132 | |
| I^2t value for fusing ($t=10ms$, $T_j=25$) | I^2t | 72 | A^2s |
| Critical rate of rise of on-state current ($I_G=2 \times I_{GT}$, $f=100Hz$, $f=125$) | di/dt | 50 | A/s |
| Peak gate current ($t=20s$, $T_j=125$) | I_{GM} | 4 | A |
| Average gate power dissipation ($f=125$) | $P_{G(AV)}$ | 0.5 | W |
| Peak gate power | P_{GM} | 10 | W |

| | | | |
|--|----------|-----|----|
| Peak pulse voltage ($T_j=25^\circ\text{C}$; non-repetitive, off-state; FIG.8) | V_{pp} | 3.5 | kV |
|--|----------|-----|----|

ELECTRICAL CHARACTERISTICS (unless otherwise specified)

Symbol Test Condition Quadrant

ORDERING INFORMATION



MARKING XXX XXX

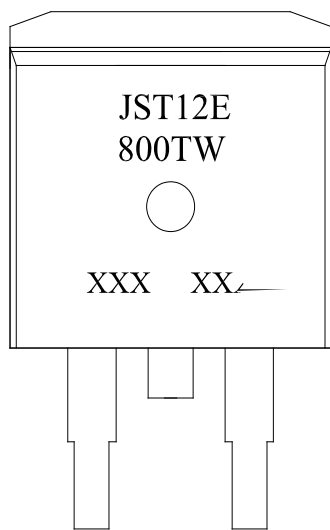
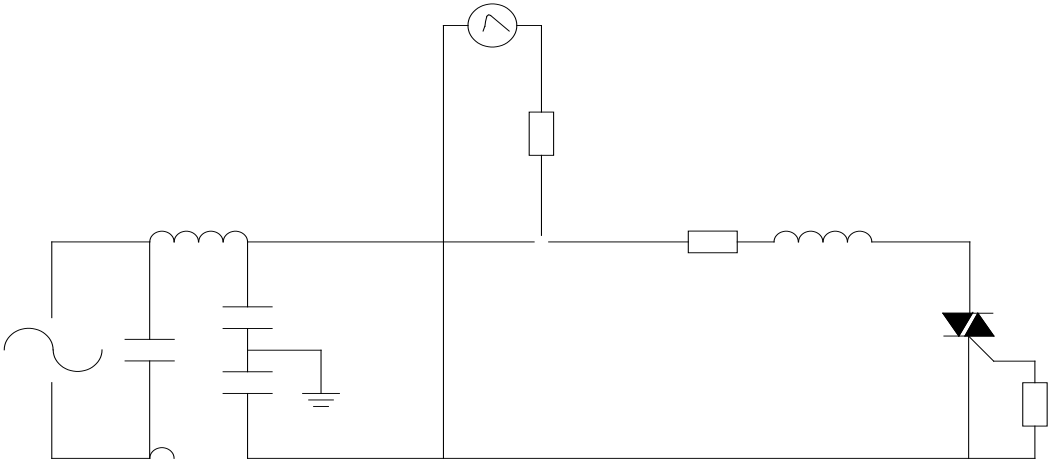


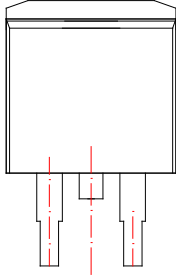
FIG.8 Test circuit for inductive and resistive loads to 100-5 standards



ORDERING INFORMATION

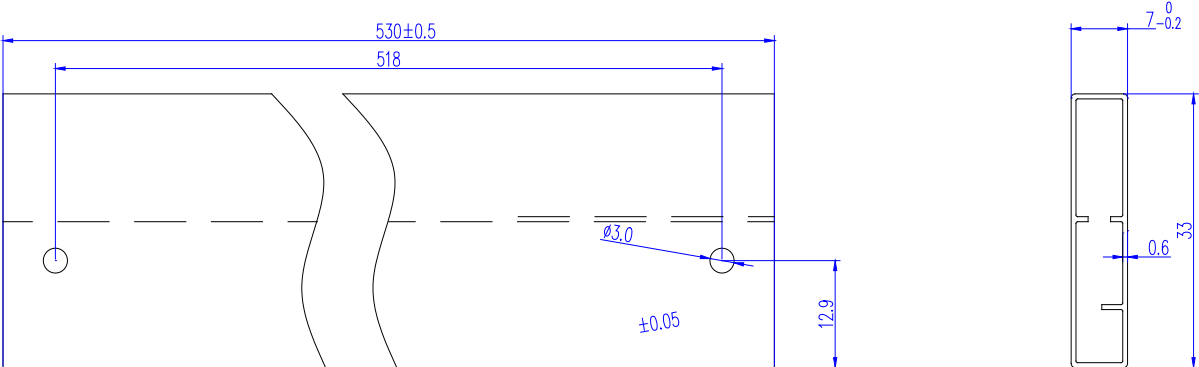


PACKAGE MECHANICAL DATA



| Ref. | Dimensions | | | | | |
|------|-------------|------|-------|--------|------|-------|
| | Millimeters | | | Inches | | |
| | Min. | Typ. | Max. | Min. | Typ. | Max. |
| A | 9.90 | | 10.20 | 0.390 | | 0.402 |
| B | 14.70 | | 15.80 | 0.579 | | 0.622 |
| C | 9.40 | | 9.60 | 0.370 | | 0.378 |
| D | 2.40 | | | 0.094 | | |
| E | 1.20 | | 1.50 | 0.047 | | 0.059 |
| F | 0.75 | | 0.85 | 0.029 | | 0.033 |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |

DELIVERY MODE



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