



JST16E-800SW 16A TRIAC

Rev.A.1.1

DESCRIPTION:

The JST16E-800SW 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. JST16E-800SW snubberless triac is especially recommended for use on inductive loads. It can be driven directly through the MCU I/O port. Package TO-263 is RoHS compliant.

MAIN FEATURES

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 ($T_j=25^\circ\text{C}$) | V_{DRM} | 800 | V |
| Repetitive peak reverse voltage ($T_j=25^\circ\text{C}$) | V_{RRM} | 800 | V |
| RMS on-state current ($T_c=98^\circ\text{C}$) | $I_{T(RMS)}$ | 16 | A |
| Non repetitive surge peak on-state current (full cycle, $t_p=20\text{ms}$, $T_j=25^\circ\text{C}$) | I_{TSM} | 160 | A |
| Non repetitive surge peak on-state current (full cycle, $t_p=16.6\text{ms}$, $T_j=25^\circ\text{C}$) | | 176 | |

I^2t value for fusing ($t_p=10\text{ms}$, $T_j=25^\circ\text{C}$)

| | | | |
|--|----------|---|----|
| Peak pulse voltage ($T_j=25$; non-repetitive, off-state; FIG.8) | V_{pp} | 4 | kV |
|--|----------|---|----|

ELECTRICAL CHARACTERISTICS (unless otherwise specified)

| Symbol | Test Condition | Quadrant | Value | | Unit |
|----------|---------------------------------------|----------|-------|-----|------|
| I_{GT} | $V_D=12V$ $R_L=33$ | - - | MAX. | 10 | mA |
| V_{GT} | | - - | MAX. | 1 | V |
| V_{GD} | $V_D=V_{DRM}$ $T_j=125$ $R_L=3.3k$ | - - | MIN. | 0.2 | V |

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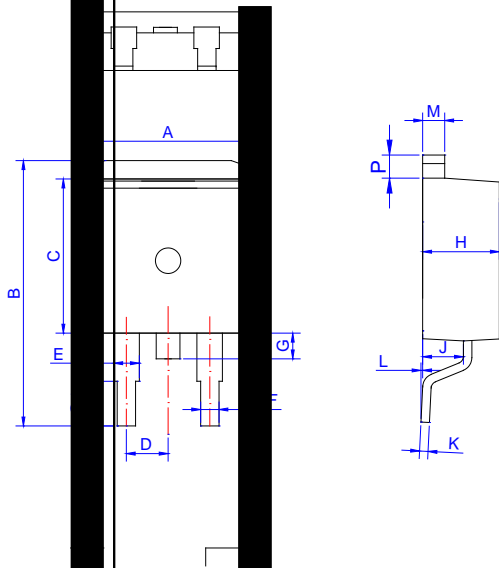
ORDERING INFORMATION

| Order code | Voltage V_{DRM}/V_{RRM} (V) | IGT(mA) | Package | Base qty. (pcs) | Delivery mode |
|-----------------|----------------------------------|---------|---------|--------------------|---------------|
| | | - - | | | |
| JST16E-800SW | 800 | 10 | TO-263 | 50 | Tube |
| JST16E-800SW-TR | | | | 800 | Tape & Reel |

Document Revision History

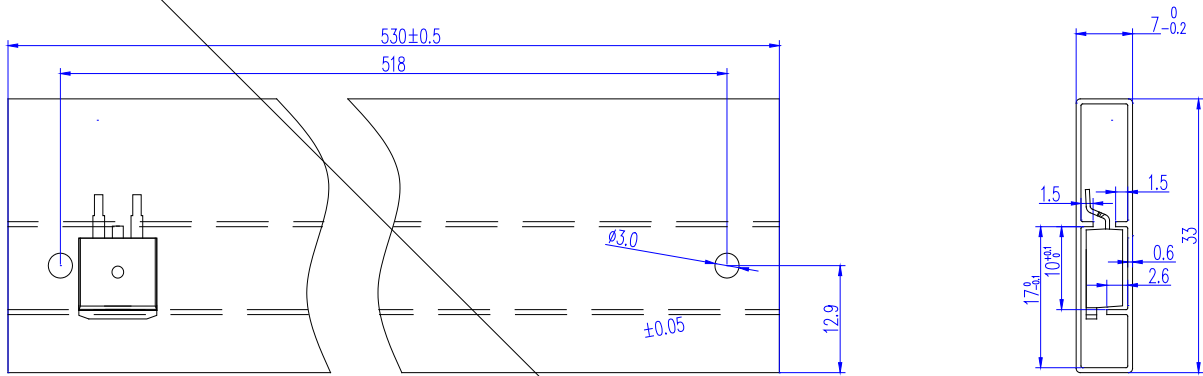
| Date | Revision | Changes |
|--------------|----------|--------------------------------|
| Apr.12, 2023 | A.1.0 | Last updated |
| Oct.20, 2025 | A.1.1 | Revise PACKAGE MECHANICAL DATA |

PACKAGE MECHANICAL DATA

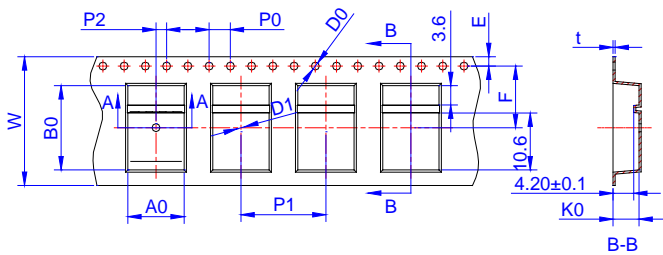


| Ref. | Dimensions | | | | | |
|------|-------------|------|-------|--------|------|-------|
| | Millimeters | | | Inches | | |
| | Min. | Typ. | Max. | Min. | Typ. | Max. |
| A | 9.90 | | 10.20 | 0.390 | | 0.402 |
| B | 14.70 | | 15.80 | 0.579 | | 0.622 |
| C | 9.40 | | 9.60 | 0.370 | | 0.378 |
| D | 2.40 | | 2.70 | 0.094 | | 0.106 |
| E | 1.20 | | 1.50 | 0.047 | | 0.059 |
| F | 0.75 | | 0.85 | 0.029 | | 0.033 |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |

DELIVERY MODE



| PACKAGE | OUTLINE | TUBE (PCS) | INNER BOX (PCS) | PER CARTON |
|---------|---------|------------|-----------------|------------|
| TO-263 | TUBE | 50 | 1,000 | 5,000 |



| Ref. | Dimensions | | | | | |
|------|-------------|-------|-------|--------|-------|-------|
| | Millimeters | | | Inches | | |
| | Min. | Typ. | Max. | Min. | Typ. | Max. |
| W | 23.70 | 24.00 | 24.30 | 0.933 | 0.945 | 0.957 |
| E | 1.65 | 1.75 | 1.85 | 0.065 | 0.069 | 0.073 |
| F | 11.40 | 11.50 | 11.60 | 0.449 | 0.453 | 0.457 |
| D0 | - | 1.50 | 1.60 | - | 0.059 | 0.063 |
| D1 | - | 1.50 | 1.60 | - | 0.059 | 0.063 |
| P0 | 3.90 | 4.00 | 4.10 | 0.154 | 0.157 | 0.161 |
| P1 | 15.90 | 16.00 | 16.10 | 0.626 | 0.630 | 0.634 |
| P2 | 1.90 | 2.00 | 2.10 | 0.075 | 0.079 | 0.083 |
| A0 | 10.80 | 10.90 | 11.00 | 0.425 | 0.429 | 0.433 |
| B0 | 16.20 | 16.30 | 16.40 | 0.638 | 0.642 | 0.646 |
| K0 | 4.80 | 4.90 | 5.00 | 0.189 | 0.193 | 0.197 |
| t | 0.35 | 0.40 | 0.45 | 0.014 | 0.016 | 0.018 |

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