

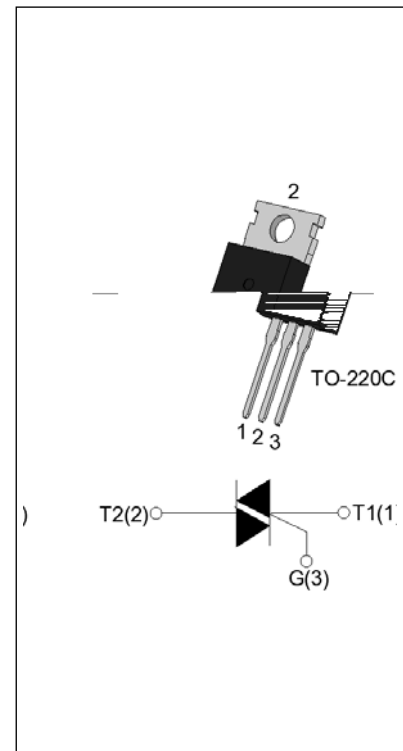


JST06C-600BW 6A TRIAC

Rev.A.1.0

DESCRIPTION:

The JST06C-600BW 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. JST06C-600BW snubberless triac is especially recommended for use on inductive loads. From T2 terminals to external heatsink. Package TO-220C is RoHS compliant.



MAIN FEATURES

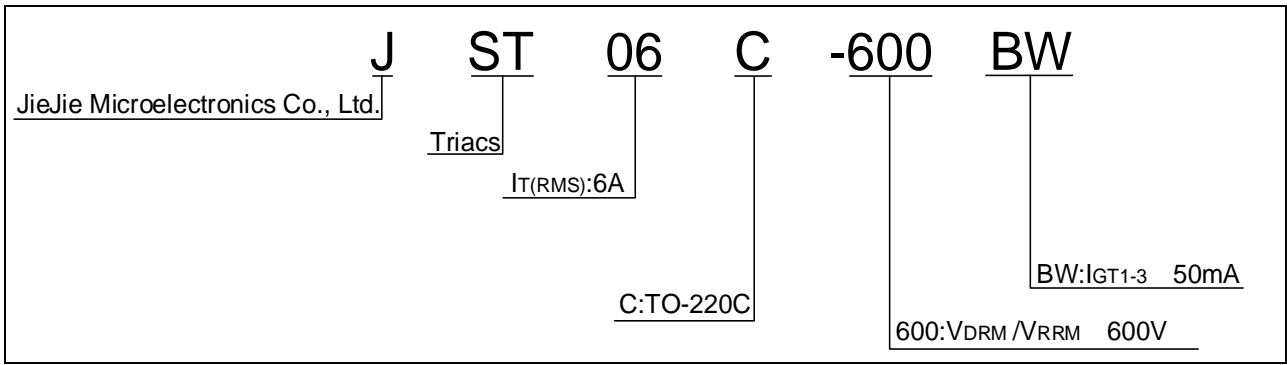
| Symbol | Value | Unit |
|-------------------|----------|------|
| $I_{T(RMS)}$ | 6 | A |
| V_{DRM}/V_{RRM} | 600 | V |
| $I_{GT} / /$ | 50/50/50 | mA |

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 ($T_j=25^\circ C$) | V_{DRM} | 600 | V |
| Repetitive peak reverse voltage ($T_j=25^\circ C$) | V_{RRM} | 600 | V |
| RMS on-state current ($T_c = 111^\circ C$) | $I_{T(RMS)}$ | 6 | A |
| Non repetitive surge peak on-state current (full cycle, $t_p=20ms$, $T_j=25^\circ C$) | I_{TSM} | 65 | A |
| Non repetitive surge peak on-state current (full cycle, $t_p=16.6ms$, $T_j=25^\circ C$) | | 72 | |
| I^2t value for fusing ($t_p=10ms$, $T_j=25^\circ C$) | I^2t | 21 | A^2s |
| Critical rate of rise of on-state current ($I_G=2 I_{GT}$, $f=100Hz$, $T_j=125^\circ C$) | di/dt | 100 | $A/\mu s$ |
| Peak gate current ($t_p=20\mu s$, $T_j=125^\circ C$) | I_{GM} | 4 | A |
| Average gate power dissipation ($T_j=125^\circ C$) | $P_{G(AV)}$ | 0.5 | W |
| Peak gate power | P_{GM} | 10 | W |



ORDERING INFORMATION



MARKING

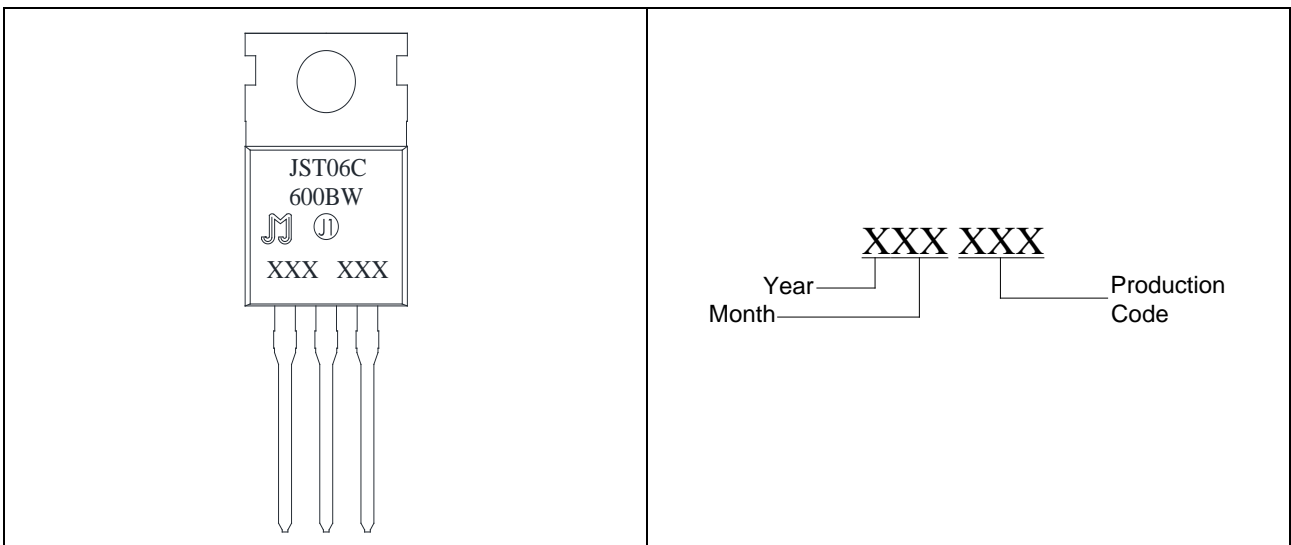


FIG.1 Maximum power dissipation versus RMS on-state current

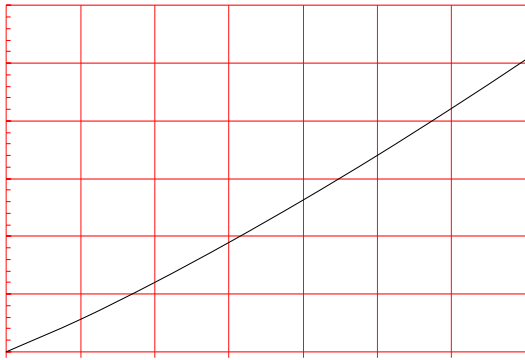


FIG.2: RMS on-state current versus case temperature

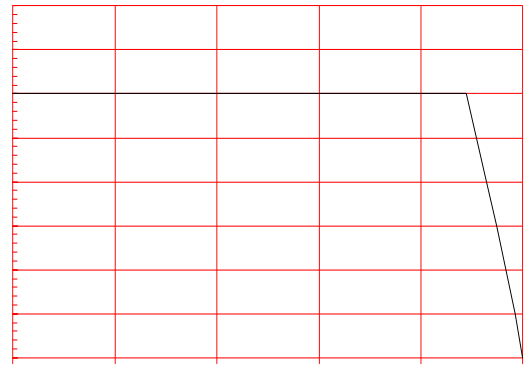


FIG.3: Surge peak on-state current versus number of cycles

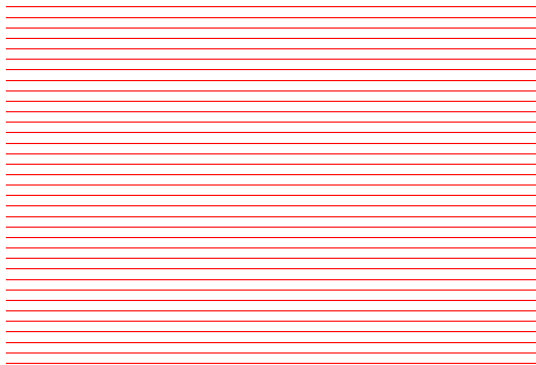
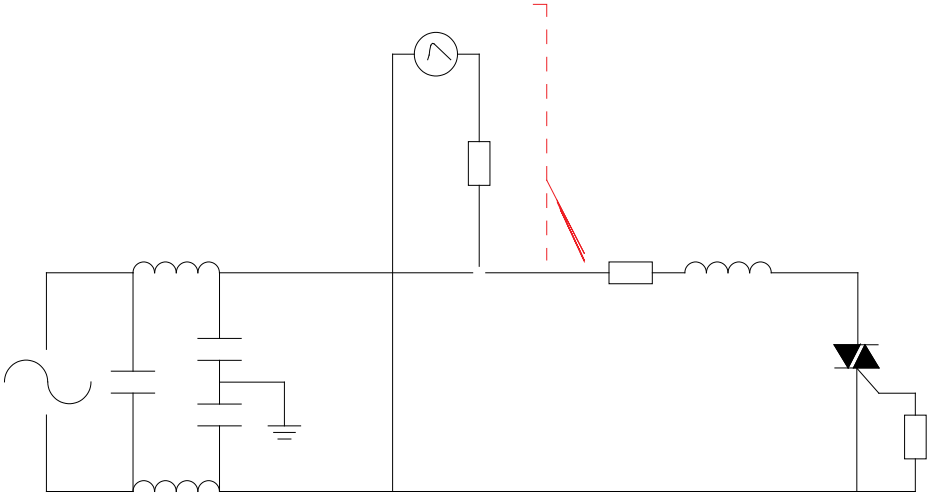


FIG.4: On-state characteristics

FIG.7 Test circuit for inductive and resistive loads to IEC-61000-4-5 standards



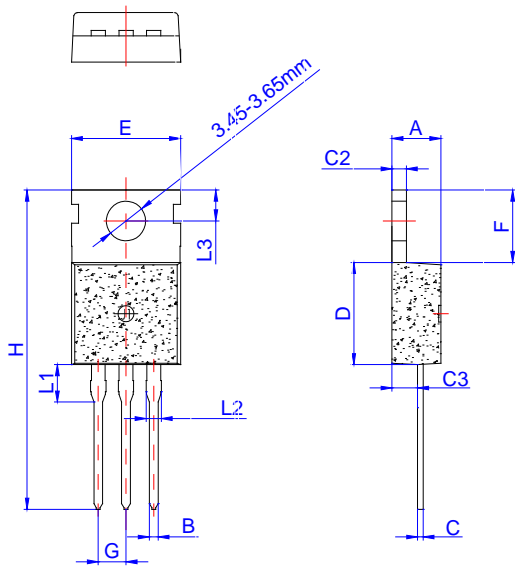
ORDERING INFORMATION

| Order code | Voltage V_{DRM}/V_{RRM} (V) | IGT(mA) | Package | Base qty. (pcs) | Delivery mode |
|---------------------|----------------------------------|-----------|----------------|--------------------|------------------|
| | | - - | | | |
| JST06C-600BW | 600 | 50 | TO-220C | 50 | Tube |

Document Revision History

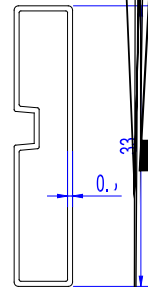
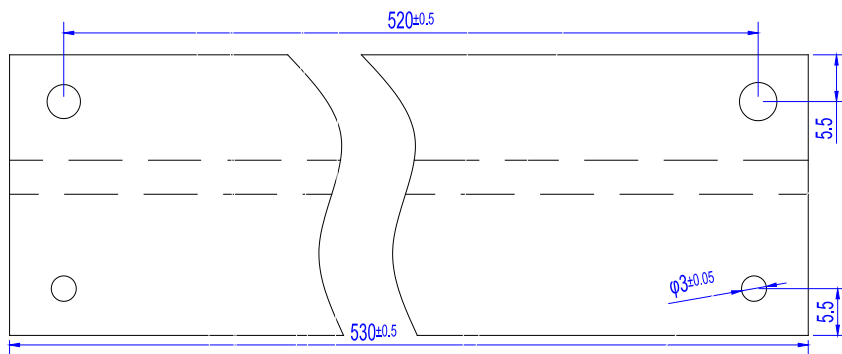
| Date | Revision | Changes |
|--------------|----------|--------------|
| Apr.11, 2023 | A.1.0 | Last updated |

PACKAGE MECHANICAL DATA




| Ref. | Dimensions | | | | | |
|------|-------------|------|------|--------|------|-------|
| | Millimeters | | | Inches | | |
| | Min. | Typ. | Max. | Min. | Typ. | Max. |
| A | 4.40 | | 4.60 | 0.173 | | 0.181 |
| B | 0.70 | | 0.90 | 0.028 | | 0.035 |
| C | 0.45 | | 0.60 | 0.018 | | 0.024 |
| C2 | 1.25 | | 1.35 | 0.049 | | 0.053 |
| C3 | 2.20 | | 2.60 | 0.087 | | 0.102 |
| D | 8.90 | | 9.90 | 0.350 | | 0.390 |
| E | 9.90 | | 10.3 | 0.390 | | 0.406 |
| F | 6.30 | | 6.90 | 0.248 | | 0.272 |
| G | 2.40 | | 2.70 | 0.094 | | 0.106 |
| H | 28.0 | | 29.8 | 1.102 | | 1.173 |
| L1 | 2.70 | | 3.30 | 0.106 | | 0.130 |
| L2 | 1.14 | | 1.70 | 0.045 | | 0.067 |
| L3 | 2.65 | | 2.95 | 0.104 | | 0.116 |

DELIVERY MODE



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