



## JST20E-1200CW 20A TRIAC

Rev.A.1.1

### DESCRIPTION:

The JST20E-1200CW 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. JST20E-1200CW snubberless triac is especially recommended for use on inductive loads. 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 ( $T_j=25^\circ\text{C}$ ) | $V_{DRM}$ | 1200    | V    |

Repetitive peak reverse current ( $T_j=25^\circ\text{C}$ ) 0.482mA (max)  
Non-repetitive peak reverse current ( $T_j=25^\circ\text{C}$ ) 0.481mA (max)  
Average power dissipation ( $T_j=25^\circ\text{C}$ ) 0.2337W (max)  
Peak forward surge current ( $T_j=25^\circ\text{C}$ ) 14A (max)  
Peak non-repetitive surge current ( $T_j=25^\circ\text{C}$ ) 56A (max)

|                                                                  |     |   |    |
|------------------------------------------------------------------|-----|---|----|
| Peak pulse voltage<br>(Tj=25 ; non-repetitive, off-state; FIG.8) | Vpp | 4 | kV |
|------------------------------------------------------------------|-----|---|----|

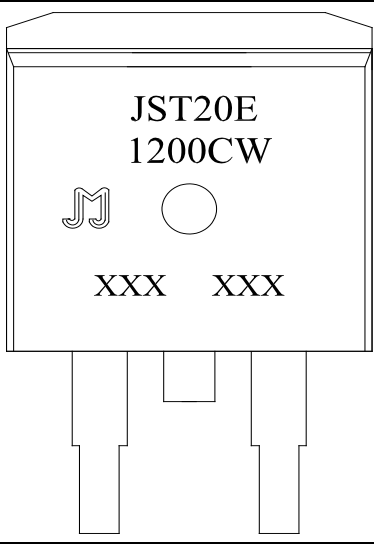
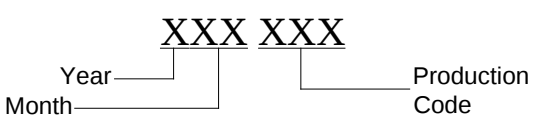
S.32 re f(>BDC /C2\_1 1 Tf35 -0.002 T)7olesepetmbol0 Tw 3.61/S.32 re f(>BDC /C2 -0.09T  
ELECTRICAL CHARACTERISTICS (Tj=25 unless otherwi753.48 0.00pec0.00ified)

Smbol

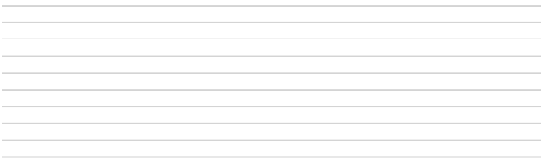
ORDERING INFORMATION

|                                   |                    |                 |          |                                |                         |                              |
|-----------------------------------|--------------------|-----------------|----------|--------------------------------|-------------------------|------------------------------|
| <u>J</u>                          | <u>ST</u>          | <u>20</u>       | <u>E</u> | <u>-1200</u>                   | <u>CW</u>               | <u>-/</u>                    |
| JieJie Microelectronics Co., Ltd. | Triacs             |                 |          |                                |                         | Blank:Tube<br>-TR:Tape &Reel |
|                                   | <u>IT(RMS):20A</u> |                 |          |                                |                         |                              |
|                                   |                    | <u>E:TO-263</u> |          |                                | <u>CW:IGT1-3 ≤ 35mA</u> |                              |
|                                   |                    |                 |          | <u>1200:VDRM /VRRM ≥ 1200V</u> |                         |                              |

MARKING

|                                                                                     |                                                                                      |
|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
|  |  |
|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|

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



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

**FIG.7:** Relative variations of gate trigger current, holding current and latching current versus junction temperature

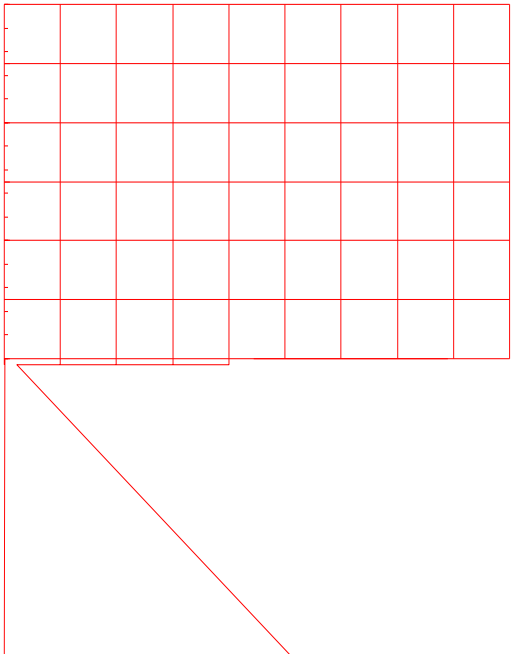


FIG.8: Test circuit for inductive and resistive loads to IEC-61000-4-5 standards

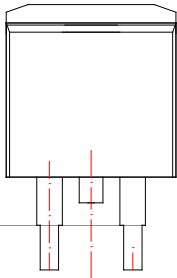
## ORDERING INFORMATION

| Order code       | Voltage<br>$V_{\text{DRM}}/V_{\text{RRM}}$ (V) | IGT(mA) | Package | Base qty.<br>(pcs) | Delivery mode |
|------------------|------------------------------------------------|---------|---------|--------------------|---------------|
|                  |                                                | - -     |         |                    |               |
| JST20E-1200CW    | 1200                                           | 35      | TO-263  | 50                 | Tube          |
| JST20E-1200CW-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        |      |       | 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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