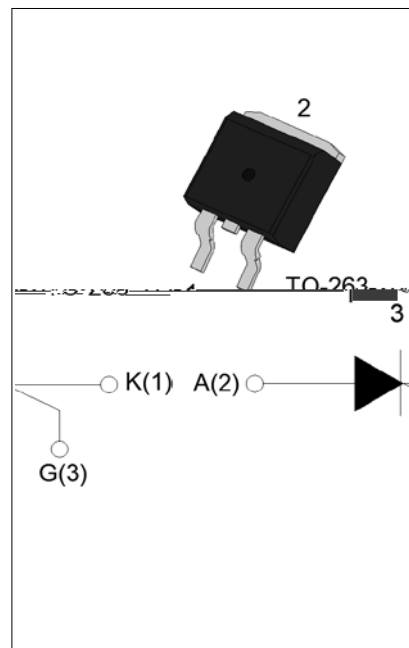




DESCRIPTION:

With high ability to withstand the shock loading of large current, JCT1208E provides high dV/dt rate with strong resistance to electromagnetic interference. It is especially recommended for use on hair straightener motorcycle voltage regulator etc. Package TO-263 is RoHS compliant.



MAIN FEATURES

| Symbol | Value | Unit |
|-------------------|-------|------|
| $I_{T(RMS)}$ | 8 | A |
| V_{DRM}/V_{RRM} | 1200 | V |
| I_{GT} | "15 | 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} | 1200 | V |
| Repetitive peak reverse voltage ($T_j=25^\circ C$) | V_{RRM} | 1200 | V |
| Average on-state current ($T_c=92^\circ C$) | $I_{T(AV)}$ | 5 | A |
| RMS on-state current ($T_c=92^\circ C$) | $I_{T(RMS)}$ | 8 | A |
| Non repetitive surge peak on-state current ($t_p=10ms, T_j=25^\circ C$) | I_{TSM} | 85 | A |
| Non repetitive surge peak on-state current ($t_p=8.3ms, T_j=25^\circ C$) | | 94 | |
| I^2t value for fusing ($t_p=10ms, T_j=25^\circ C$) | I^2t | 36 | A^2s |
| Critical rate of rise of on-state current ($I_G=2 \times I_{GT}, f=100Hz, T_j=125^\circ C$) | di/dt | 100 | A/s |
| Peak gate current ($t_p=20\mu s, T_j=125^\circ C$) | I_{GM} | 4 | A |
| Average gate power dissipation ($T_j=125^\circ C$) | $P_{G(AV)}$ | 1 | W |

ORDERING INFORMATION

| | | | | | |
|----------------------------------|------|---------------------|---------------|----------|-------------------------------|
| J | CT | 12 | 08 | E | -/ |
| JieJie Microelectronics Co.,Ltd. | SCRs | 12:VDRM /VRRM 1200V | 08:IT(RMS):8A | E:TO-263 | Blank:Tube -TR:Tape & Reel |

MARKING



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

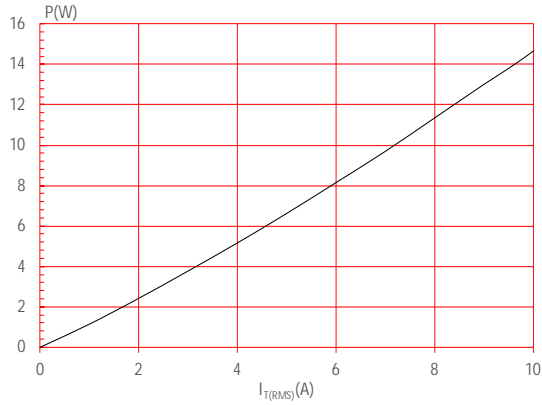


FIG.2: RMS on-state current versus case temperature

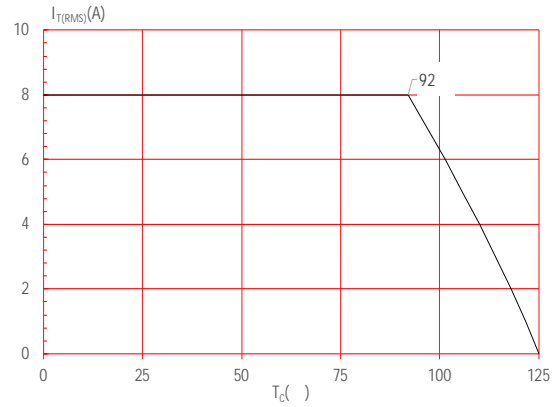


FIG.3: RMS on-state current versus ambient temperature (printed circuit board FR4,copper WKLFNHVV cycle) IXOO

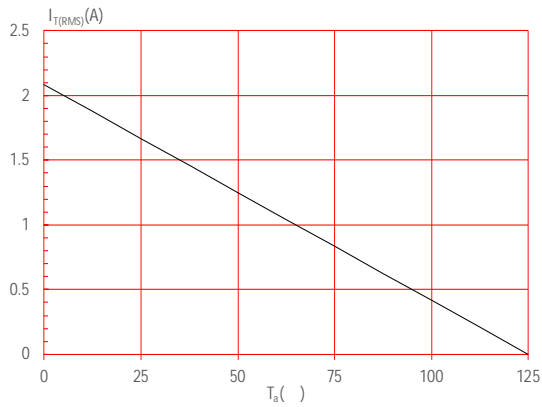


FIG.4: Surge peak on-state current versus number of cycles

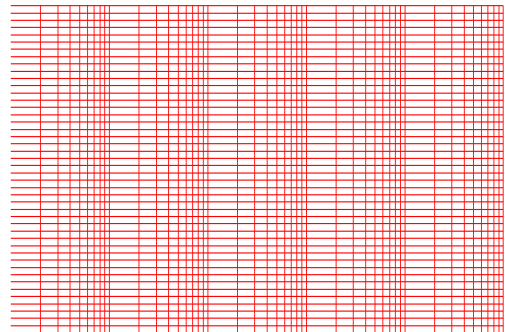
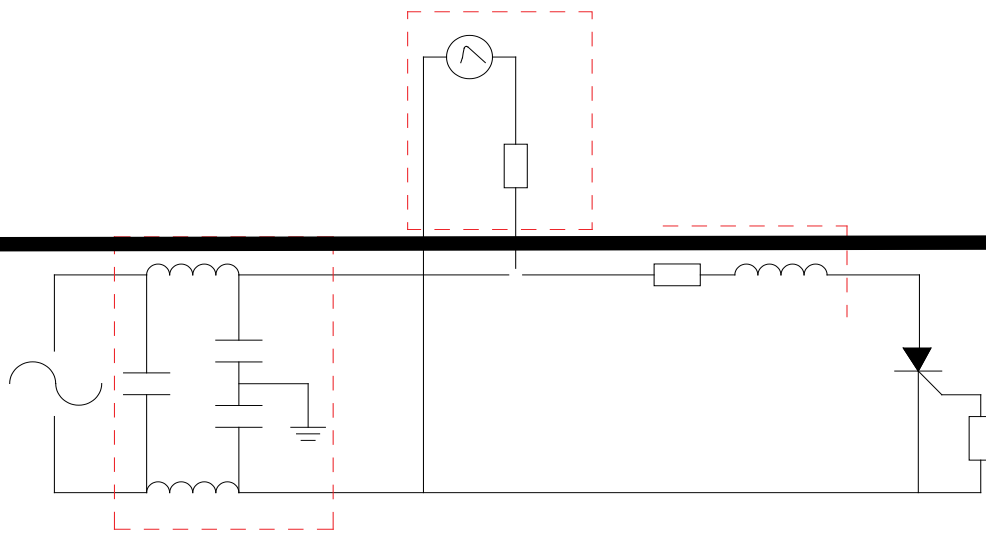


FIG.8 Test circuit for inductive and resistive loads to IEC-61000-4-5 standards.



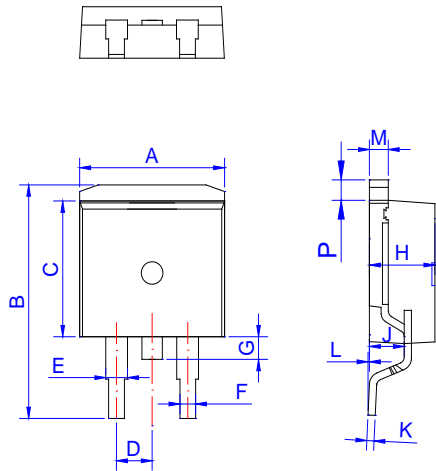
ORDERING INFORMATION

| Order code | Voltage V_{DRM}/V_{RRM} (V) | IGT(mA) | Package | Base qty. (pcs) | Delivery mode |
|-------------|----------------------------------|---------|---------|--------------------|------------------|
| JCT1208E | 1200 | 15 | TO-263 | 50 | Tube |
| JCT1208E-TR | | | | 800 | Tape & Reel |

Document Revision History

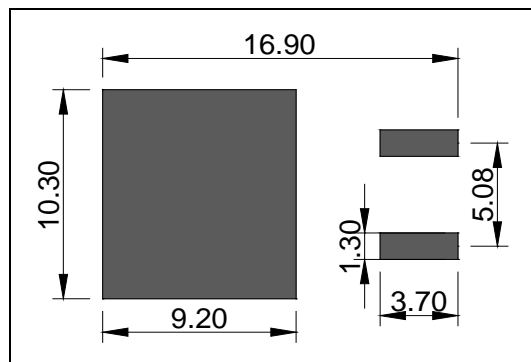
| Date | Revision | Changes |
|--------------|----------|-------------|
| Apr.13, 2023 | A.1.0 | Last update |

PACKAGE MECHANICAL DATA

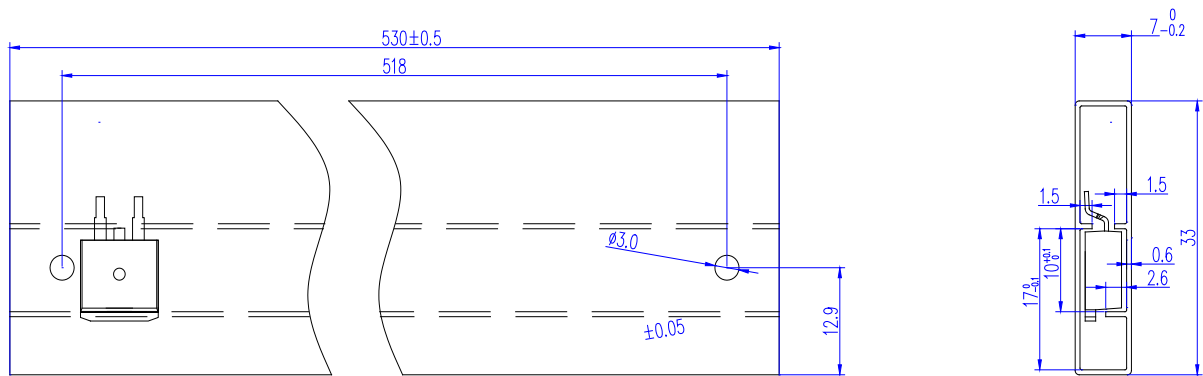


| Ref. | Dimensions | | | | | |
|------|-------------|------|-------|--------|-------|-------|
| | Millimeters | | | Inches | | |
| | Min. | Typ. | Max. | Min. | Typ. | Max. |
| A | 9.90 | | 10.20 | 0.390 | | 0.402 |
| B | 14.70 | | 15.80 | 0.579 | | 0.622 |
| C | 9.40 | | 9.60 | 0.37 | | 0.378 |
| D | 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 |
| G | 1.00 | | 1.50 | 0.039 | | 0.059 |
| H | 4.40 | | 4.70 | 0.173 | | 0.185 |
| J | 2.30 | | 2.70 | 0.091 | | 0.106 |
| K | 0.38 | | 0.55 | 0.015 | | 0.022 |
| L | 0 | 0.10 | 0.25 | 0 | 0.004 | 0.010 |
| M | 1.25 | | 1.35 | 0.049 | | 0.053 |
| P | 1.20 | | 1.50 | 0.047 | | 0.059 |

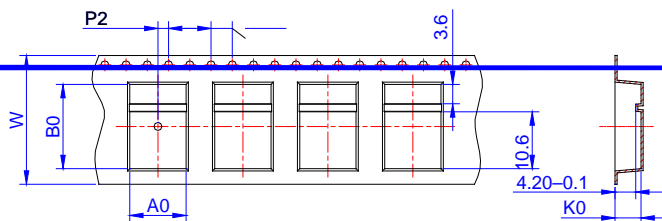
FOOTPRINTO263(dimensions in mm)



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 |

-22.6piJ 0.00.urate a()TJ 0 -1.47 TD [(H)6 (ov)

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