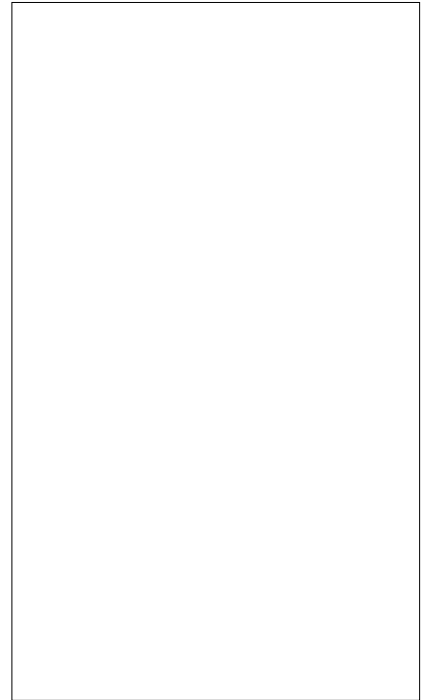




JCT1608K 8A SCR

Rev.A.1.1



| | | | |
|--|-------------|-----|----|
| Average gate power dissipation ($T_j=125$) | $P_{G(AV)}$ | 1 | W |
| Peak gate power | P_{GM} | 5 | W |
| Peak pulse voltage ($T_j=25$; non-repetitive, off-state; FIG.8) | V_{pp} | 1.8 | kV |

($T_j=25$ unless otherwise specified)

| Symbol | Test Condition | Value | | | Unit |
|----------|------------------------------------|-------|------|------|------|
| | | MIN. | TYP. | MAX. | |
| I_{GT} | $V_D=12V$ $R_L=33$ | - | - | 15 | mA |
| V_{GT} | | - | - | 1 | V |
| V_{GD} | $V_D=V_{DRM}$ $T_j=125$ $R_L=3.3k$ | 0.2 | - | - | V |
| I_L | $I_G=1.2I_{GT}$ | - | - | 40 | mA |

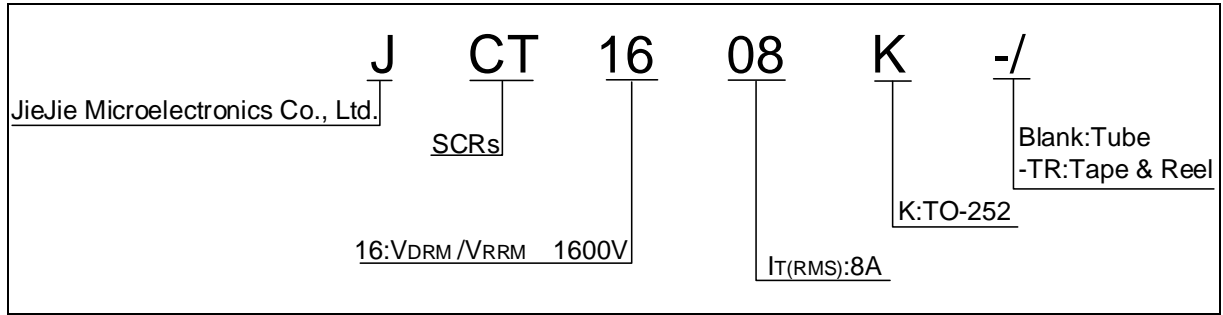


FIG.1: Maximum power dissipation versus RMS on-state current

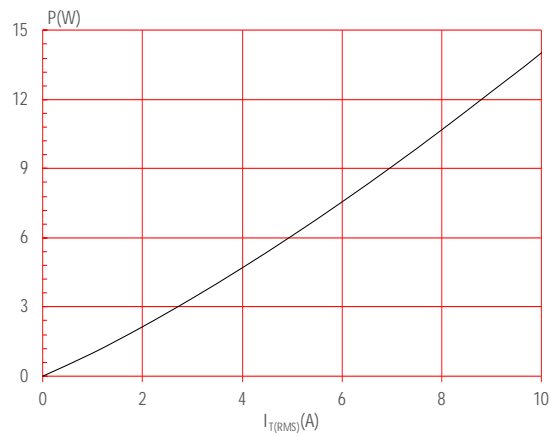
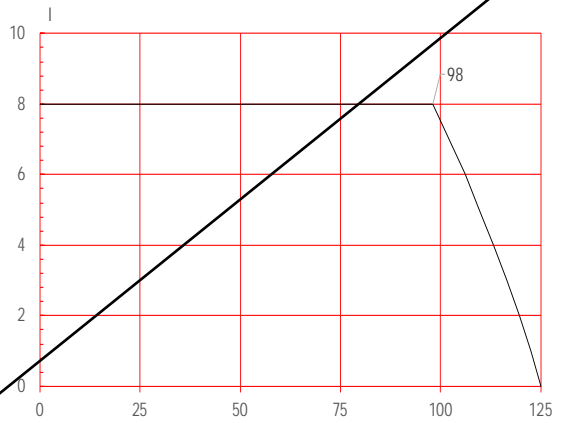


FIG.2: RMS on-state current versus case temperature

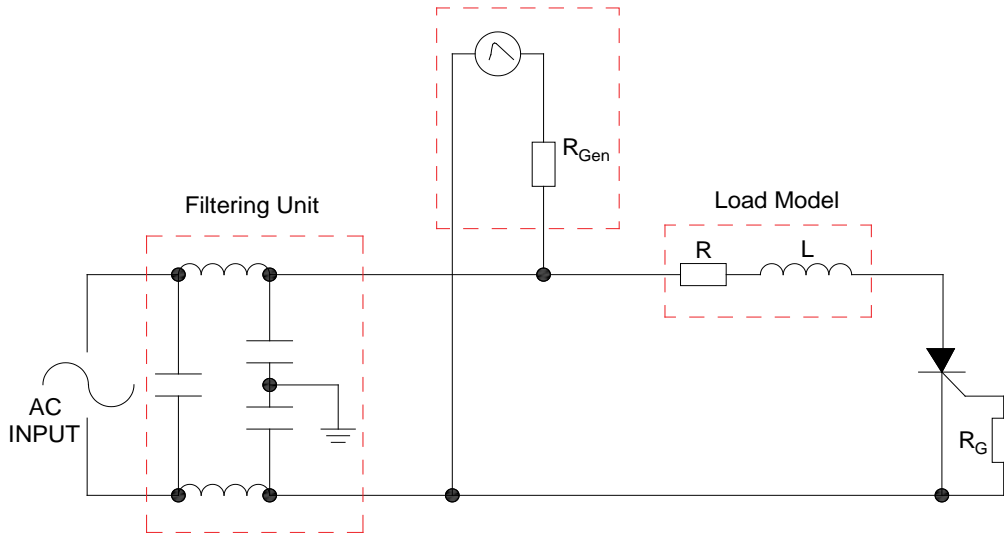


JCT1608K

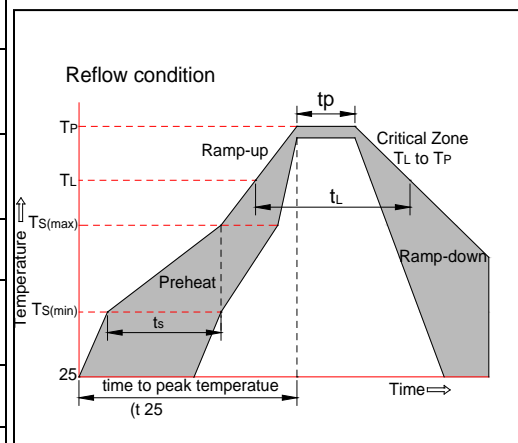
JieJie M

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

IEC61000-4-5 Standards
Surge Generator



| | | |
|---|--------------------------------------|---|
| Reflow Condition | | Pb-Free assembly (see figure at right) |
| Pre Heat | -Temperature Min ($T_{s(min)}$) | +150 |
| | -Temperature Max($T_{s(max)}$) | +200 |
| | -Time (Min to Max) (t_s) | 60-180 secs. |
| Average ramp up rate (Liquidus Temp (T_L) to peak) | | 3 /sec. Max |
| $T_{s(max)}$ to T_L - Ramp-up Rate | | 3 /sec. Max |
| Reflow | -Temperature(T_L) (Liquidus) | +217 |
| | -Temperature(t_L) | 60-150 secs. |
| Peak Temp (T_p) | | +260(+0/-5) |
| Time within 5 of actual Peak Temp (t_p) | | 20-40secs. |
| Ramp-down Rate | | 6 /sec. Max |
| Time 25 to Peak Temp (T_p) | | 8 min. Max |
| Do not exceed | | +260 |

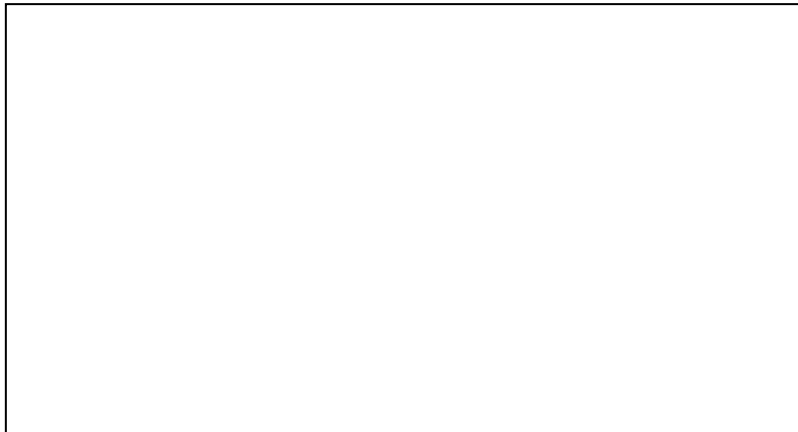


| Order code | Voltage V_{DRM}/V_{RRM} (V) | IGT(mA) | Package | Base qty. (pcs) | Delivery mode |
|-------------|----------------------------------|---------|---------|--------------------|------------------|
| JCT1608K | 1600 | 15 | TO-252 | 80 | Tube |
| JCT1608K-TR | | | | 2,500 | Tape & Reel |

Document Revision History

| Date | Revision | Changes |
|--------------|----------|--------------------------------|
| Apr.7, 2024 | A.1.0 | Last update |
| Oct.21, 2025 | A.1.1 | Revise PACKAGE MECHANICAL DATA |

| Ref. | Dimensions | | | | | |
|------|-------------|------|------|--------|------|-------|
| | Millimeters | | | Inches | | |
| | Min. | Typ. | Max. | Min. | Typ. | Max. |
| A | 2.10 | | 2.50 | 0.083 | | 0.098 |
| A2 | 0 | | 0.15 | 0 | | 0.006 |
| B | 0.66 | | 0.86 | 0.026 | | 0.034 |
| C | 0.40 | | 0.60 | 0.016 | | 0.024 |
| D | 5.90 | | 6.30 | 0.232 | | 0.248 |
| E | 6.40 | | 6.80 | 0.252 | | 0.268 |
| G | 4.47 | | | 0.053 | | 0.65 |
| G1 | 2.18 | | 2.38 | 0.086 | | 0.094 |
| L | | | | | | |
| L2 | | | | 0.053 | | 0.065 |





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