



JR0805F 8A SCR

Rev.A.1.0

DESCRIPTION:

The JR0805F SCR with the parallel resistor between Gate and Cathode, R_{GK} is especially recommended for use on straight hair, igniter, anion generator, etc. From all three terminals to external heatsink, JR0805F provides a rated insulation voltage of 2000 V_{RMS} ,c

| | | | |
|--|-------------|-----|----|
| 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.7) | V_{pp} | 0.5 | kV |

NOTE 1: When we parallel connect a T_j can reach 125 ; if without this resistor, the T_j only can reach 110 .

ELECTRICAL CHARACTERISTICS ($T_j=25$ unless otherwise specified)

| Symbol | Test Condition | Value | | | Unit |
|-----------|-------------------------------|-------|------|------|------|
| | | MIN. | TYP. | MAX. | |
| I_{GT} | $V_D=12V R_L=33$ | - | - | 200 | A |
| V_{GT} | | - | - | 0.8 | V |
| V_{GD} | $V_D=V_{DRM} T_j=125$ | 0.2 | - | - | V |
| I_L | $I_G=1.2 I_{GT}$ | - | - | 6 | mA |
| I_H | $I_T=0.1A$ | - | - | 5 | mA |
| dV/dt | $V_D=400V T_j=125 R_{GK}=1K$ | 50 | - | - | V s |
| | $V_D=400V T_j=125 R_{GK}=220$ | 250 | - | - | |
| t_{on} | $I_G=10mA I_A=20mA I_R=2mA$ | - | 2 | - | s |
| t_{off} | $T_j=25$ | - | 50 | - | s |

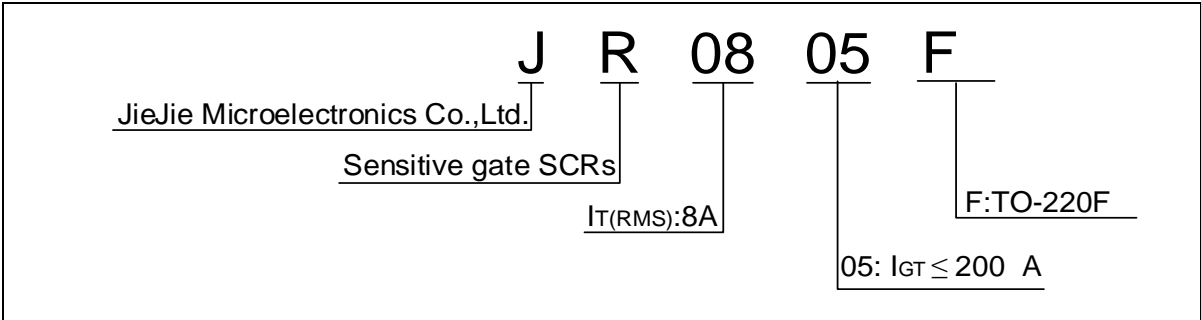
STATIC CHARACTERISTICS

| Symbol | Parameter | | Value(MAX.) | Unit |
|-----------|---------------------------|-----------|-------------|------|
| V_{TM} | $I_{TM}=16A t_p=380$ s | $T_j=25$ | 1.55 | V |
| V_{TO} | Threshold voltage | $T_j=125$ | 0.79 | V |
| R_D | Dynamic resistance | $T_j=125$ | 0.02 | |
| I_{DRM} | $V_D=V_{DRM} V_R=V_{RRM}$ | $T_j=25$ | 5 | A |
| I_{RRM} | | $T_j=125$ | 0.5 | mA |

THERMAL RESISTANCES

| Symbol | Parameter | Value | Unit |
|---------------|--------------------------|-------|------|
| $R_{th(j-c)}$ | junction to case (DC) | 3 | /W |
| $R_{th(j-a)}$ | junction to ambient (DC) | 60 | /W |

ORDERING INFORMATION



MARKING

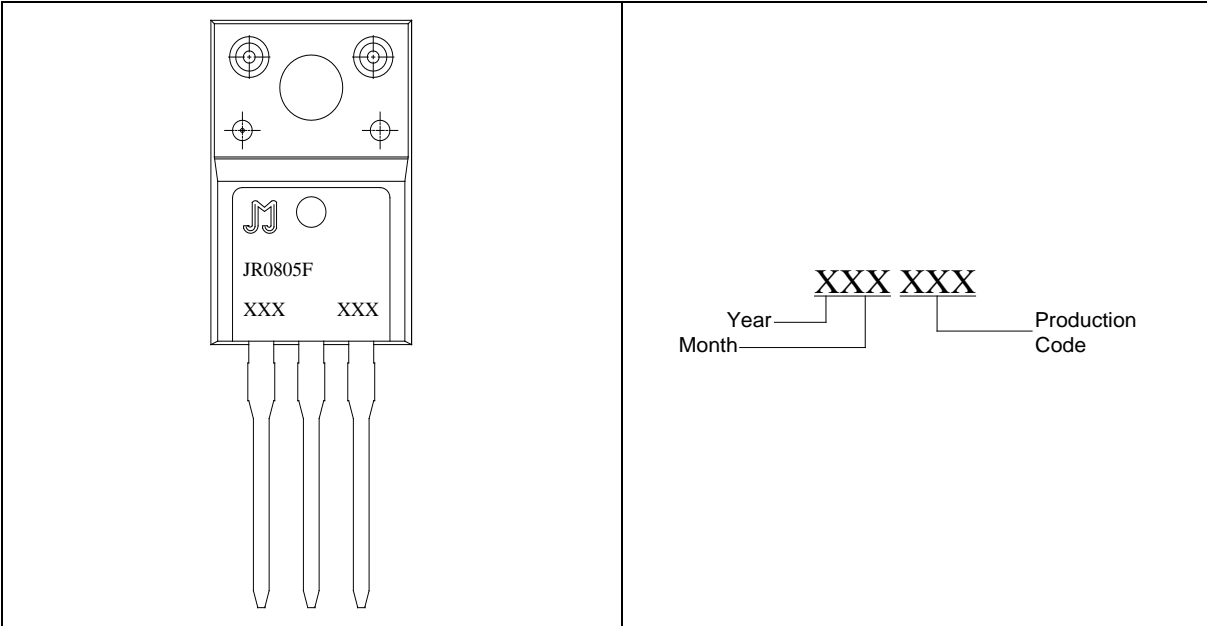


FIG.1 Maximum power dissipation versus RMS on-state current

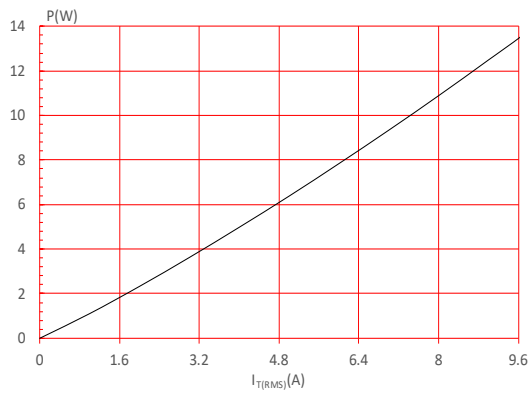


FIG.2: RMS on-state current versus case temperature

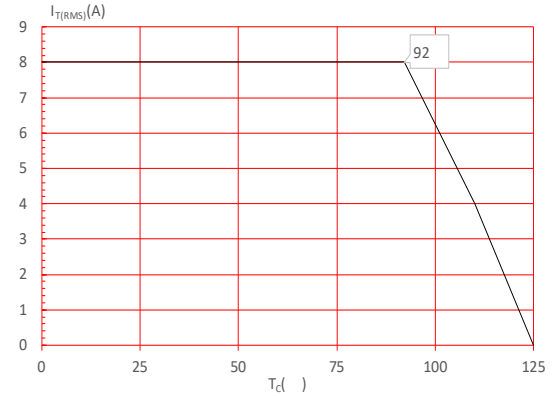


FIG.3: Surge peak on-state current versus number of cycles

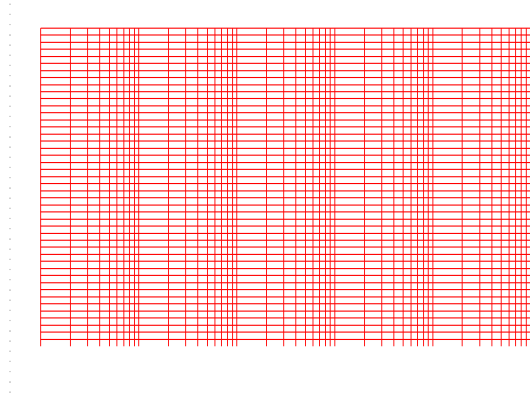
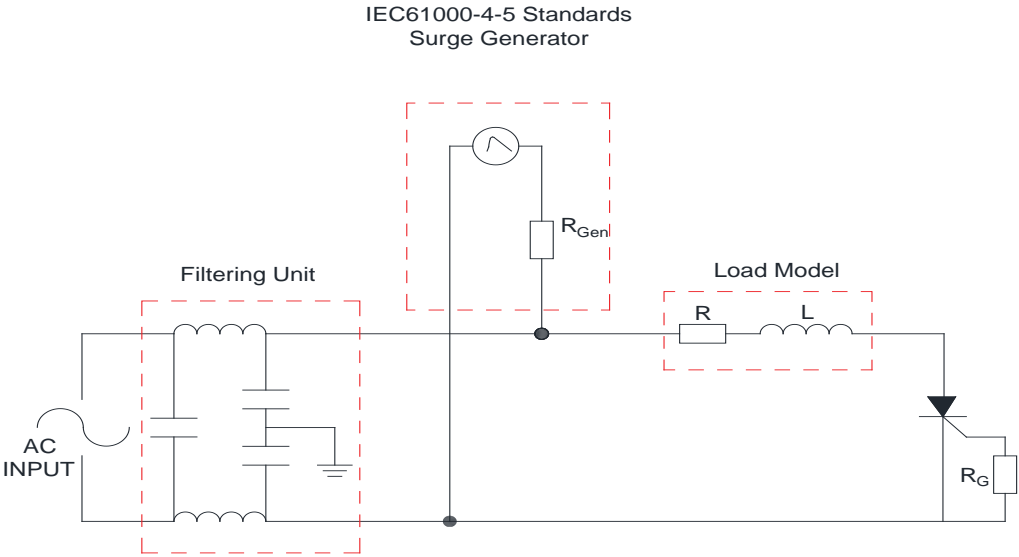


FIG.4: On-state characteristics

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



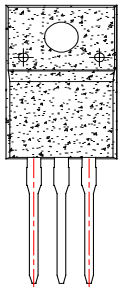
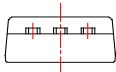
ORDERING INFORMATION

| Order code | Voltage V_{DRM}/V_{RRM} (V) | IGT) | Package | Base qty. (pcs) | Delivery mode |
|-------------------|--|--------------|----------------|----------------------------|--------------------------|
| JR0805F | 600 | 200 | TO-220F | 50 | Tube |


Document Revision History

| Date | Revision | Changes |
|--------------|-----------------|----------------|
| Apr.10, 2023 | A.1.0 | Last update |

PACKAGE MECHANICAL DATA



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