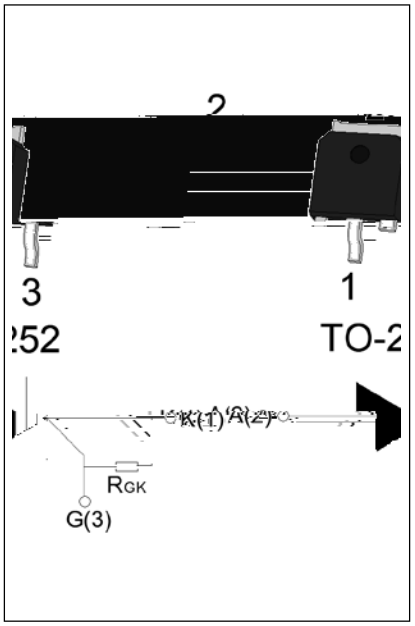
JR0805K 8A SCR

Rev A.1.1

DESCRIPTION:

The JR0805K SCR with the parallel resistor between Gate and Cathode, R_{GK}=10~80kΩ is especially recommended for use on straight hair, igniter, anion generator, etc. Package TO-252 is RoHS compliant.



MAIN FEATURES

Symbol	Value	Unit
$I_{T(RMS)}$	8	A
V_{DRM}/V_{RRM}	600	V
I_{GT}	≤200	μA

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)	V_{DRM}	600	V
Repetitive peak reverse voltage (T_j=25)	V_{RRM}	600	V
Average on-state current (T_C 76)	$I_{T(AV)}$	5	A
RMS on-state current (T_C 76)	$I_{T(RMS)}$	8	A
Non repetitive surge peak on-state current (t_p=10ms , T_j=25)	I_{TSM}	80	A
Non repetitive surge peak on-state current (t_p=8.3ms , T_j=25)		88	
I^2t value for fusing (t_p=10ms , T_j=25)	I^2t	32	A^2s
Critical rate of rise of on-state current (I_G=2× I_{GT} , f=100Hz , T_j=125)	dI/dt	50	A/μs
Peak gate current (t_p=20μs, T_j=125)	I_{GM}	4	A
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}	0.5	kV

NOTE 1: Operating junction temperature T_j is up to 125 when a resistor ≤1kΩ is connected between Gate and Cathode. Without this resistor, the T_j is up to 110 only.

ELECTRICAL CHARACTERISTICS (T_j=25 unless otherwise specified)

Symbol	Test Condition	Value			Unit
		MIN.	TYP.	MAX.	
I_{GT}	V_D=12V R_L=33ΩGT				

ORDERING INFORMATION

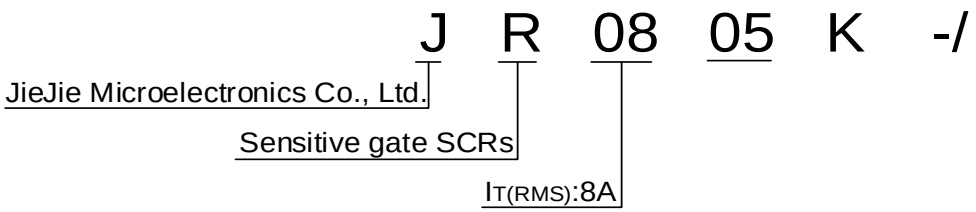
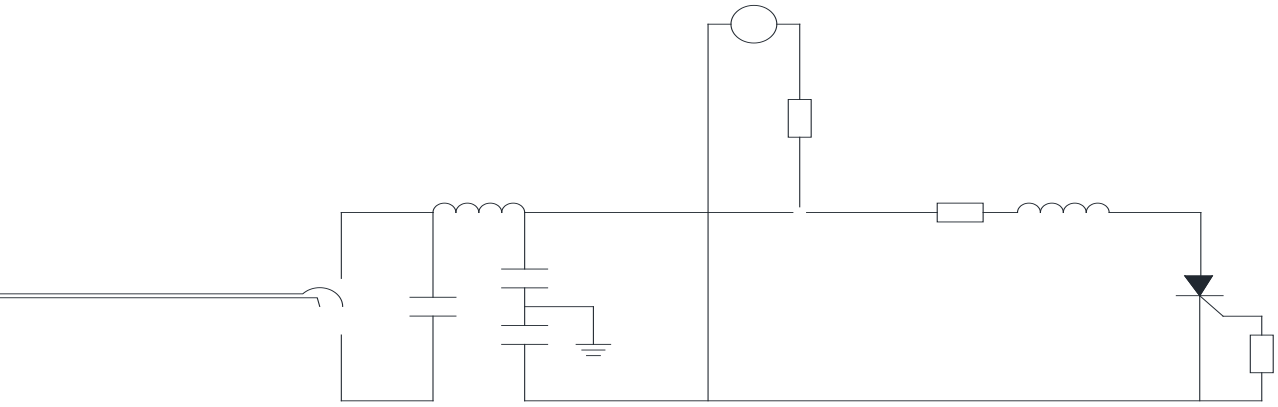


FIG.1: Maximum power dissipation versus RMS on-state current

FIG.2:

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

Ordered	Voltage V_{DRM}/V_{RRM} (V)	IGT (mA)	Package	Base qty (pcs)	Delivery mode
JR0805K	600	200	TO-252	80	Tube
JR0805K-TR				2,500	Tape & Reel

Document Revision History

Date	Revision	Changes
Apr.10, 2023	A.1.0	Last update
Oct.22, 2025	A.1.1	Revise PACKAGE MECHANICAL DATA

DELIVERY MODE



Information furnished in this document is believed to be accurate and reliable.
However, Jiangsu JieJie Microelectronics Co., Ltd. nattd