



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:** When we parallel connect a 1K resistor between Gate and Cathode, the  $T_j$  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	$\mu A$
$V_{GT}$		-	-	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/ $\mu s$
	$V_D=400V T_j=125 R_{GK}=220$	250	-	-	
$t_{on}$	$I_G=10mA I_A=20mA I_R=2mA$	-	2	-	$\mu s$
$t_{off}$	$T_j=25$	-	50	-	$\mu s$

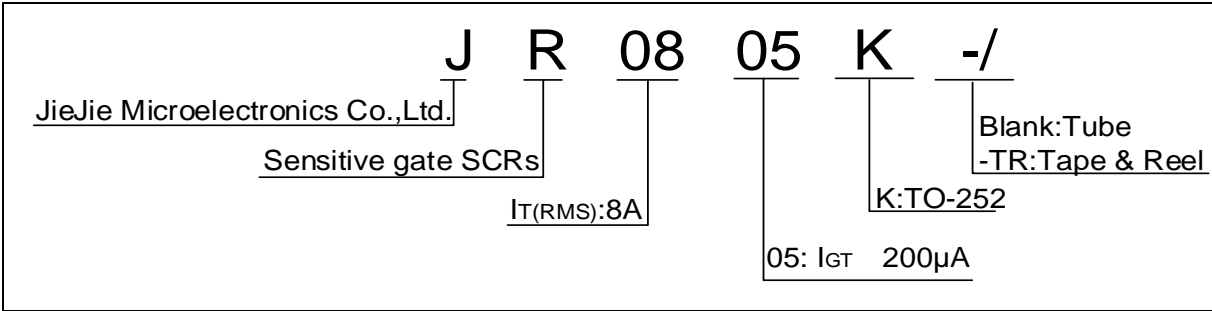
### STATIC CHARACTERISTICS

Symbol	Parameter		Value(MAX.)	Unit
$V_{TM}$	$I_{TM}=16A t_p=380\mu s$	$T_j=25$	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	$\mu A$
$I_{RRM}$		$T_j=125$	0.5	mA

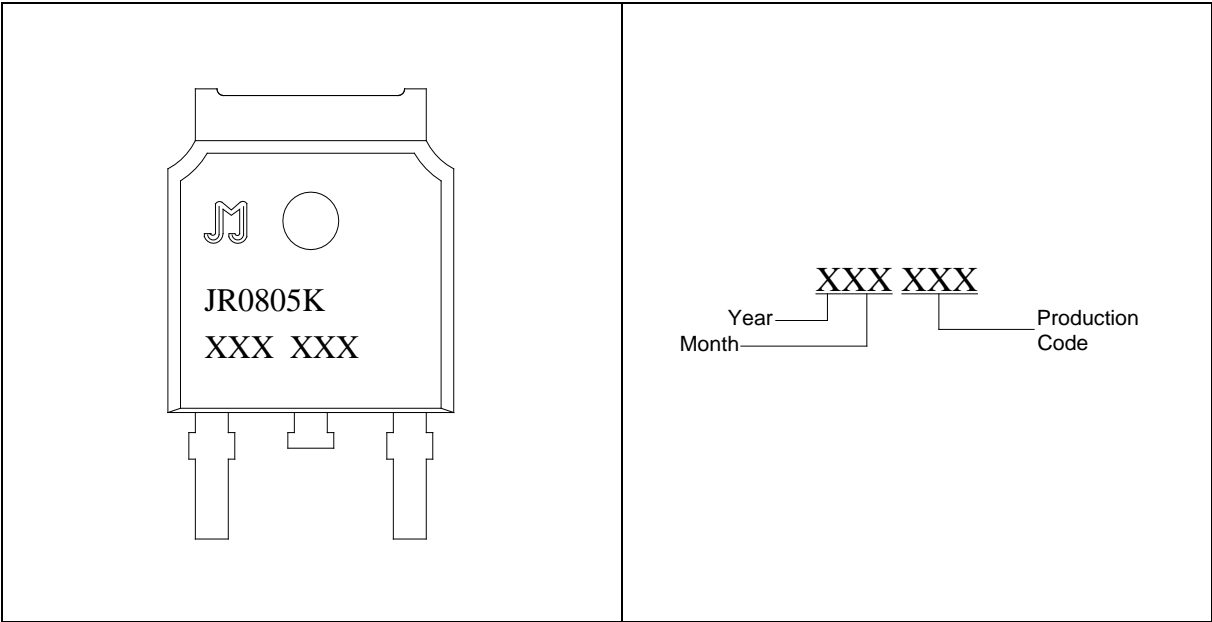
### THERMAL RESISTANCES

Symbol	Parameter	Value	Unit
$R_{th(j-c)}$	junction to case (DC)	4.5	/W
$R_{th(j-a)}$	junction to ambient (DC)	120	/W

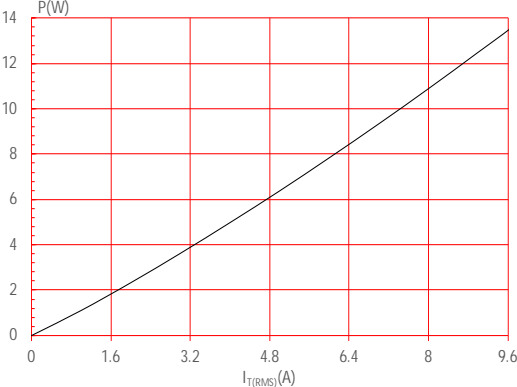
ORDERING INFORMATION



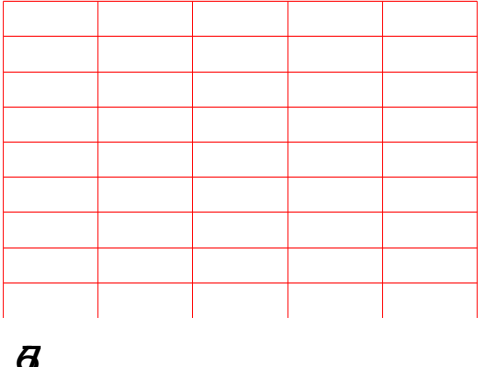
MARKING



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



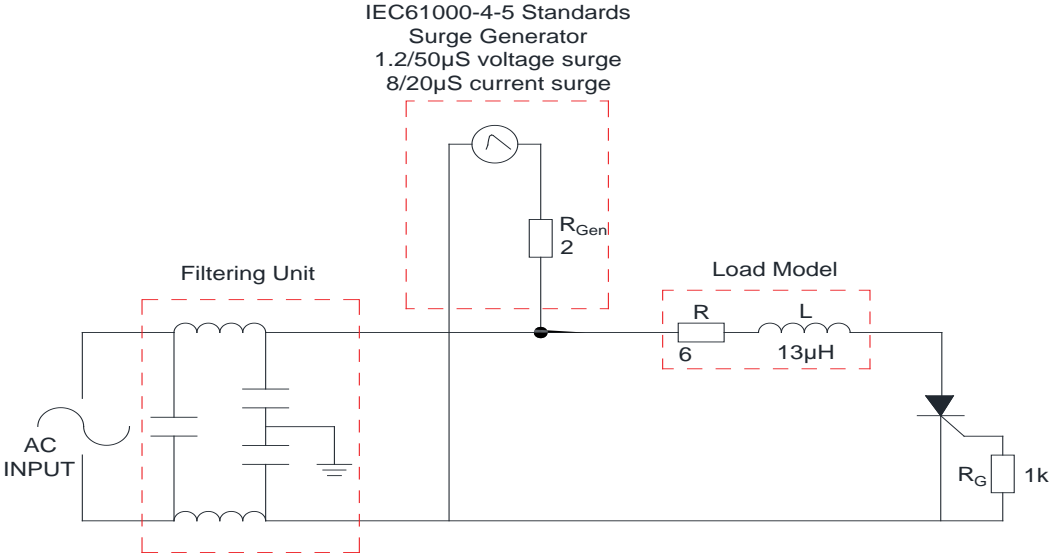
**FIG.2:** RMS on-state current versus case temperature



**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



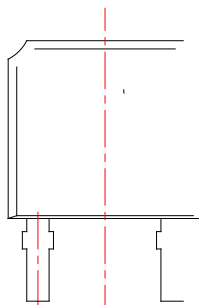
## ORDERING INFORMATION

Order code	Voltage $V_{DRM}/V_{RRM}$ (V)	IGT ( )	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

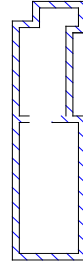
PACKAGE MECHANICAL DATA




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
B2	5.18		5.48	0.202		0.216
C	0.40		0.60	0.016		0.024
C2	0.44		0.58	0.017		0.023
D	5.90		6.30	0.232		0.248
D1						
E	6.40		6.80	0.252		0.268
E1	4.63			0.182		
G	4.47		4.67	0.176		0.184
H	9.50		10.70	0.374		0.421
L	1.09		1.21	0.043		0.048
L2	1.35		1.65	0.053		0.065
V1		7°			7°	
V2	0°		6°	0°		6°



DELIVERY MODE



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