



**JIEJIE MICROELECTRONICS CO., LTD.**

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**MCR100-8 1A Sensitive SCR -8**

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TEL

Peak gate power	$P_{GM}$	2	W
Peak pulse voltage ( $T_j=25$ ; non-repetitive, off-state; FIG.8)	$V_{pp}$	1	kV

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

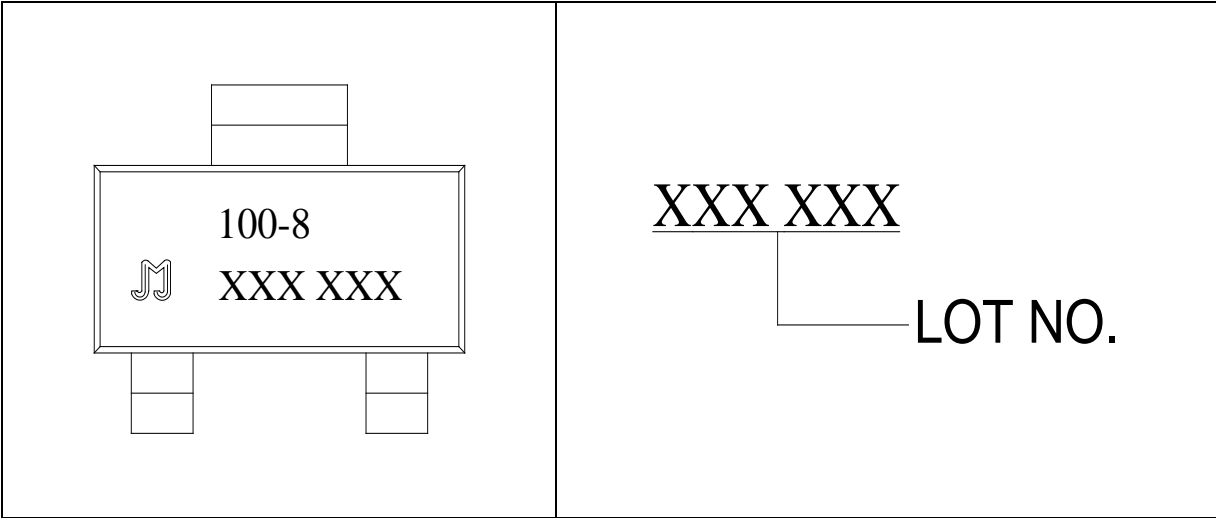
### ELECTRICAL CHARACTERISTICS ( $T_j=25$ unless otherwise specified)

Symbol	Test Condition	Value			Unit
		MIN.	TYP.	MAX.	
$I_{GT}$	$V_D=12V R_L=33$	-	40	200	$\mu A$
$V_{GT}$		-	0.6	0.8	V
$V_{GD}$	$V_D=V_{DRM} T_j=125$	0.2	-	-	V
$I_L$	$I_G=1.2 I_{GT}$	-	-	5	mA
$I_H$	$I_T=0.05A$	-	-	4	mA
dV/dt	$V_D=600V T_j=125 R_{GK}=1k$	200	-	-	V/ $\mu s$
	$V_D=600V T_j=125 R_{GK}=220$	500	-	-	
$t_{on}$	$I_G=10mA I_A=20mA I_R=2mA$	-	2	-	$\mu s$
$t_{off}$	$T_j=25$	-	50	-	$\mu s$

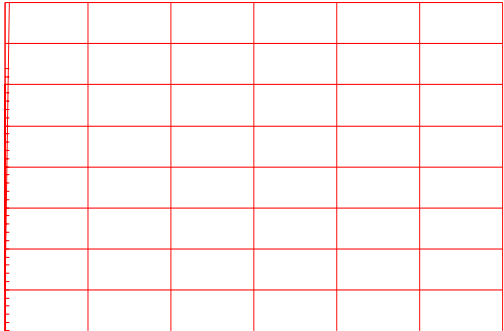
### STATIC CHARACTERISTICS

Symbol	Parameter		Value(MAX.)	Unit
$V_{TM}$	$I_T=2A t_p=380\mu s$	$T_j=25$	1.4	V
$V_{TO}$	Threshold voltage	$T_j=125$	0.8	V
$R_D$	Dynamic Resistance	$T_j=125$	0.1	
$I_{DRM}$	$V_D=V_{DRM} V_R=V_{RRM}$	$T_j=25$	5	$\mu A$
$I_{RRM}$		$T_j=125$	0.2	mA

MARKING

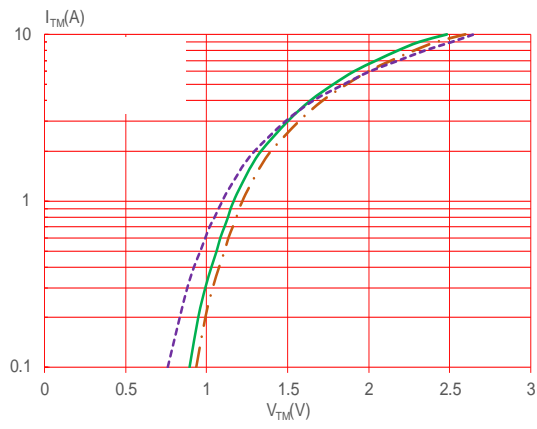


**FIG.1:** Maximum power dissipation versus RMS on-state current



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

**FIG.5:** On-state characteristics



**FIG.6:** Non-repetitive surge peak on-state current for a sinusoidal pulse with width  $t_p < 10\text{ms}$ , and corresponding value of  $I^2t$  ( $dI/dt < 100\text{A}/\mu\text{s}$ )

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

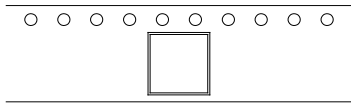
**ORDERING INFORMATION**

<b>Order code</b>	<b>Voltage <math>V_{DRM}/V_{RRM}</math> (V)</b>	<b>IGT(<math>\mu</math>A)</b>	<b>Package</b>	<b>Base qty. (pcs)</b>	<b>Delivery mode</b>
<b>MCR100-8</b>	<b>800</b>	<b>200</b>	<b>SOT-223-2L</b>	<b>4,000</b>	<b>Tape &amp; Reel</b>

**Document Revision History**



DELIVERY MODE



3  
mm

Ref.	Dimensions					
	Millimeters			Inches		
	Min.	Typ.	Max.	Min.	Typ.	Max.
W	-		12.30	-		0.482
E	1.65	1.75	1.85	0.065	0.069	0.073
F	5.45	5.50	5.55	0.215	0.217	0.219
D0		1.55	1.60		0.061	0.063
D1		-	-			
P0	3.90	4.00	4.10	0.154	0.157	0.161
P1	7.90	8.00	8.10	0.311	0.315	0.319
P2	1.95	2.00	2.05	0.077	0.079	0.081
10P0	39.80	40.00	40.20	1.567	1.575	1.583
A0	6.85	6.95	7.05	0.269	0.273	0.276
B0	7.15	7.25	7.35	0.280	0.284	0.288
K0	1.95	2.05	2.15	0.076	0.080	0.084
T	0.20	0.25	0.30	0.008	0.010	0.012

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