



A7F%\$\$!, ' '\$", 5'GYbg]h]jY'G7F'

FYj'5"&"%

^ Z / W d / K E W

The MCR100-8 SCR provides high dV/dt rate with strong resistance to electromagnetic interface. It is especially recommended for use on residual current circuit breaker, straight hair, igniter etc. Complying with UL standards (File ref: E252906).Package TO-92 is RoHS compliant.

D / E & dhZ ^

Symbol	Value	Unit
I _{T(RMS)}	0.8	A

V_{DRM} / V_{RDM} 800 V M

Average gate power dissipation (T _j =125)	P _{G(AV)}	0.1	W
Peak gate power	P _{GM}	2	W
Peak pulse voltage (T _j =25 ; non-repetitive,off-state;FIG.7)	V _{pp}	1	kV

BCH9%. 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.

> d Z / > , Z d Z ~ / A d n unless otherwise specified •

Gma Vc`	HYgh` 7 cbX]h]cb`	JU` i Y`			I b]h`
		A-B`	HMD`	A5L`	
I _{GT}	V _D =12V R _L =33	-	50	200	μA
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}	-	-	4	mA
I _H	I _T =0.05A	-	-	3	mA
dV/dt	V _D =540V T _j =125 R _{GK} =1K	200	-	-	V/μs
	V _D =540V T _j =125 R _{GK} =220	500	-	-	
t _{on}	I _G =10mA I _A =20mA I _R =2mA	-	2	-	μs
t _{off}	T _j =25	-	50	-	μs

^ d d / , Z d Z / ^ d / ^

Gma Vc`	DUfU a YhYf`		JU` i Yf]A5L`L`	I b]h`
V _{TM}	I _T =1A t _p =380μs	T _j =25	1.35	V
V _{TO}	Threshold voltage	T _j =125	0.93	V
R _D	Dynamic Resistance	T _j =125	0.34	
I _{DRM}	V _D =V _{DRM} V _R =V _{R_{RRM}}	T _j =25	2	μA
I _{RRM}		T _j =125	0.2	mA

d , Z D > Z ^ / ^ d E ^

Gma Vc`	DUfU a YhYf`	JU` i Y`	I b]h`
R _{th(j-c)}	junction to case (DC)	63	/W
R _{th(j-a)}	junction to ambient (DC)	140	/W

A7F%\$\$!,'

 >]Y>]Y' A]WfcY`YWhfcb]Wg'7c"z'@hX"

D Z < / E '

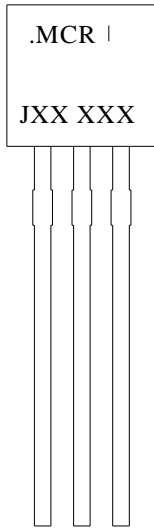
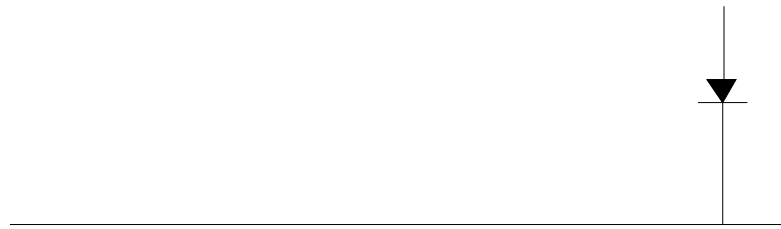


FIG.7 ÖTest circuit for inductive and resistive loads to IEC-61000-4-5 standards.



KZ Z/E' /E&KZD d/KE

CfXYf`WcXY`	Jc`hU[Y` J8FA#JFFA`flJL`	= ; Hfl 5L`	DUW_U[Y`	6UgY`ehm` fidWgL`	8Y`jYfm` a cXY`
A7F%\$\$!, ' .	, \$\$`	@&\$\$`	HC! -&`	%z\$\$\$`	6 i` _DUW_`
A7F%\$\$!, !HF`				&z\$\$\$`	HUdY` / `FYY`

8cWi aYbh`FYj]g]cb`<]ghcfm`

Date	Revision	Changes
Apr.12, 2023	A.1.0	Last update
Mar.28, 2025	A.2.0	Renew PACKAGE MECHANICAL DATA
Sept.28, 2025	A.2.1	Revise PACKAGE MECHANICAL DATA

A7F%\$\$!,'

>/s Zz DK

D57?5 ; 9'	C I H@=B9'	65 ; fID7GŁ'	=BB9F'6CL' fID7GŁ'	75FHCB'6CL' fID7GŁ'
TO-92	Bulk Pack	1,000	10,000	50,000

P1	3.55	3.85	4.15
P2	5.95	6.35	6.75
, P	-1.00	0	1.00
F1 ĀF2	2.30	2.50	2.70
F1-F2	-0.10	0	0.10
W	17.50	18.00	19.00
W0	5.50	6.00	6.50
W1	8.50	9.00	9.50
W2			1.00
D0	3.80	4.00	4.20
, H	-1.00	0	1.00
L1	2.50		
H	18.00	19.00	20.00

