



MCR100-8 1A Sensitive SCR

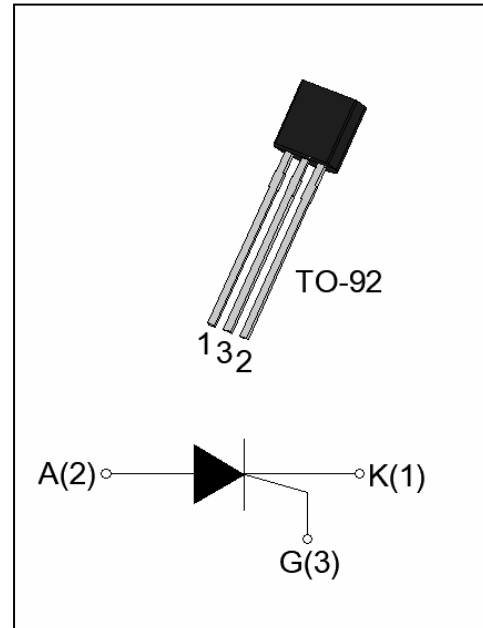
Rev.A.1.0

DESCRIPTION:

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. Package TO-92 is RoHS compliant.

MAIN FEATURES

Symbol	Value	Unit
$I_{T(RMS)}$	1	A
V_{DRM} / V_{RRM}	800	V
I_{GT}	200	μA



ABSOLUTE MAXIMUM RATINGS

Parameter	Symbol	Value	Unit
Storage junction temperature range	T_{stg}	-40-150	$^{\circ}C$
Operating junction temperature range	T_j	-40-125 ^①	$^{\circ}C$
Repetitive peak off-state voltage ($T_j=25^{\circ}C$)	V_{DRM}	800	V
Repetitive peak reverse voltage ($T_j=25^{\circ}C$)	V_{RRM}	800	V
Average on-state current ($T_c \leq 54^{\circ}C$)	$I_{T(AV)}$	0.6	A
RMS on-state current ($T_c \leq 54^{\circ}C$)	$I_{T(RMS)}$	1	A
Non repetitive surge peak on-state current ($t_p=10ms, T_j=25^{\circ}C$)	I_{TSM}	12	A
Non repetitive surge peak on-state current ($t_p=8.3ms, T_j=25^{\circ}C$)		13	
I^2t value for fusing ($t_p=10ms, T_j=25^{\circ}C$)	I^2t	0.72	A^2s
Critical rate of rise of on-state current ($I_G=2 \times I_{GT}, f=100Hz, T_j=125^{\circ}C$)	di/dt	100	$A/\mu s$
Peak gate current ($t_p=20\mu s, T_j=125^{\circ}C$)	I_{GM}	1	A
Average gate power dissipation ($T_j=125^{\circ}C$)	$P_{G(AV)}$	0.1	W



MARKING

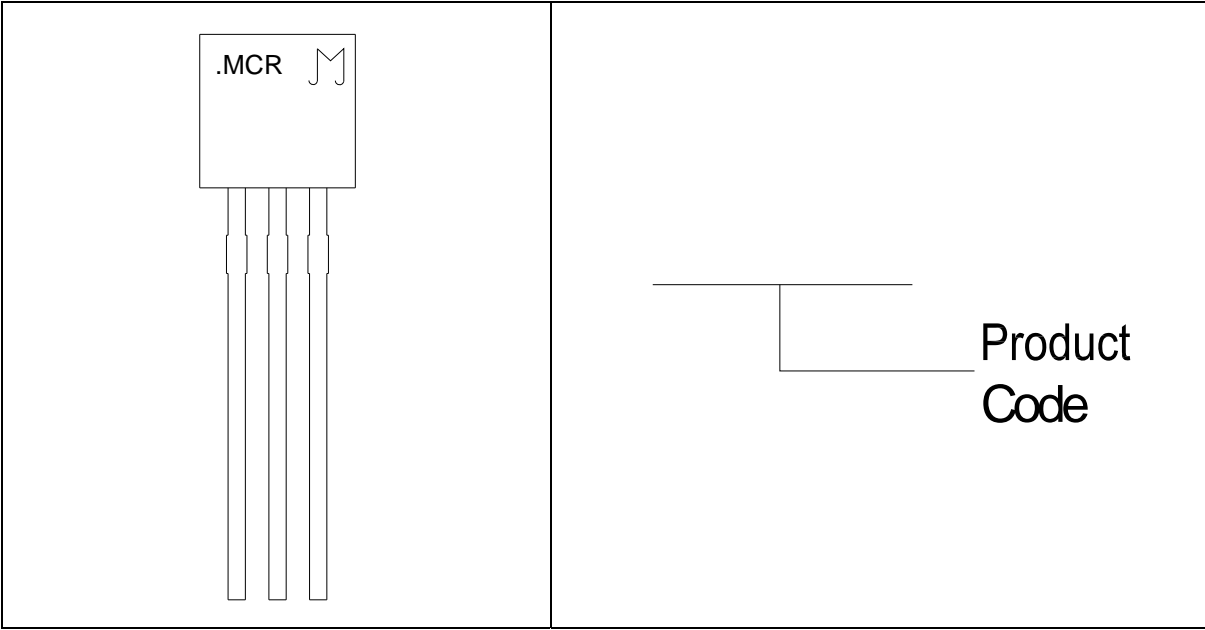


FIG.1 Maximum power dissipation versus RMS on-state current

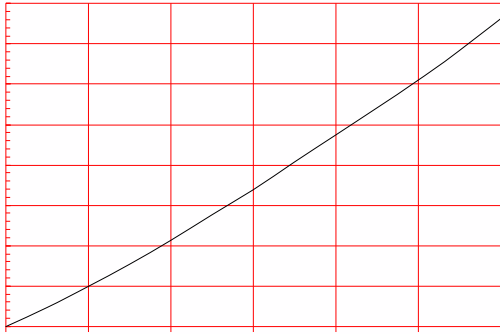


FIG.2: RMS on-state current versus case temperature

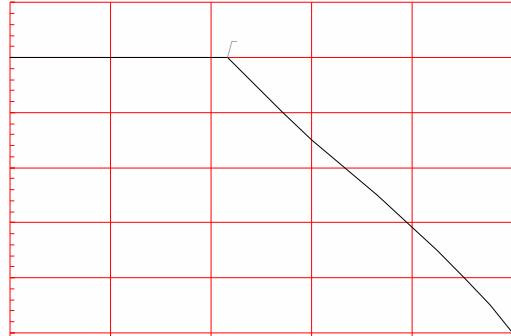


FIG.3: Surge peak on-state current versus number of cycles

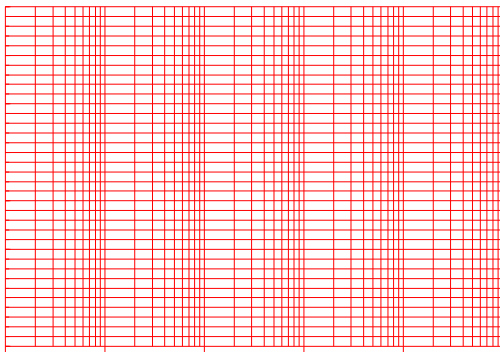
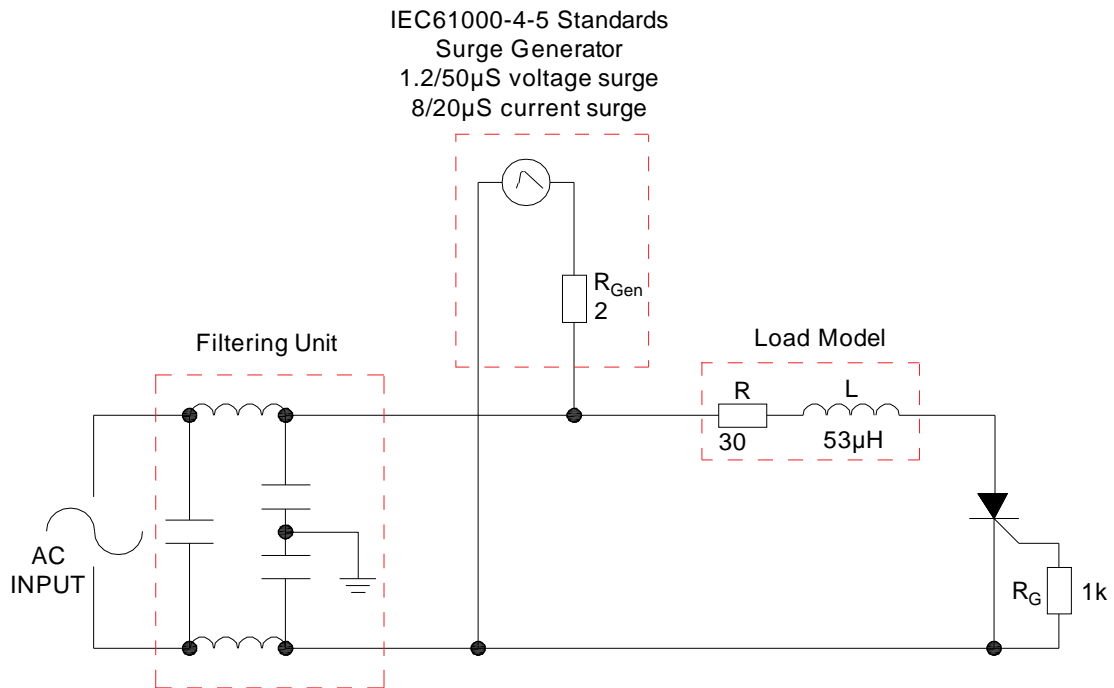


FIG.4: On-state characteristics

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



SHAPING AND SOLDERING PARAMETERS

Refer to 《Instructions for installation of plastic-sealed in-line power devices》 released by JieJie

ORDERING INFORMATION

Order code	Voltage V_{DRM}/V_{RRM} (V)	IGT(μA)	Package	Base qty. (pcs)	Delivery mode
MCR100-8	800	200	TO-92	1,000	Bulk Pack
MCR100-8-TR				2,000	Tape & Reel

Document Revision History

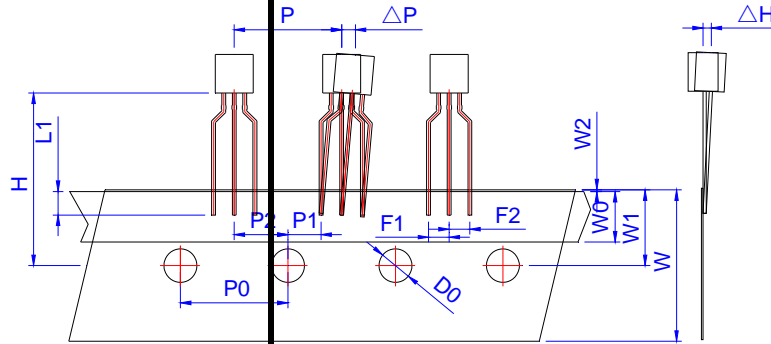
Date	Revision	Changes
May.23, 2023	A.1.0	Last update

PACKAGE MECHANICAL DATA



DELIVERY MODE

PACKAGE	OUTLINE	BAG (PCS)	INNER BOX (PCS)	CARTON BOX (PCS)
TO-92	Bulk Pack	1,000	10,000	50,000



F1-F2	-0.1	0	0.1
W	17.50	18.00	19.00
W0	5.50	6.00	6.50
W1	8.50	9.00	9.50
W2			1.0
D0	3.80	4.0	4.20
ΔH	-1.0	0	1.0
L1	2.5		
H	18.0	19.0	20.0

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