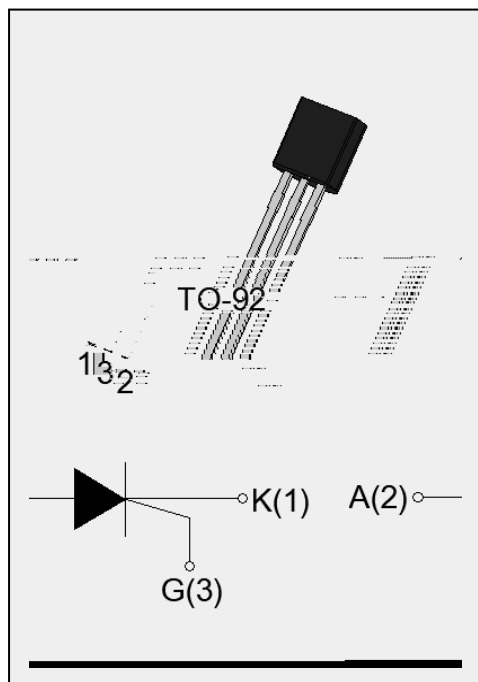




^ Z / W d / K E W

The MCR100-6 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_{RRM}	800	V
I_{GT}	200	μA

^ K b d D y / D h D Z d / E ' ^

DUFU a YhYf'	Gma Vc''	JU' iY'	I b]h'
Storage junction temperature range	T_{stg}	-40-150	
Operating junction temperature range	T_j	-40-125 ⁷	
Repetitive peak off-state voltage ($T_j=25$)	V_{DRM}	800	V
Repetitive peak reverse voltage ($T_j=25$)	V_{RRM}	800	V
Average on-state current ($T_c 060$)	$I_{T(AV)}$	0.5	A
RMS on-state current ($T_c 060$)	$I_{T(RMS)}$	0.8	A
Non repetitive surge peak on-state current ($t_p=10ms$, $T_j=25$)	I_{TSM}	8	A
Non repetitive surge peak on-state current ($t_p=8.3ms$, $T_j=25$)		9	
I^2t value for fusing ($t_p=10ms$, $T_j=25$)	I^2t	0.32	A^2s
Critical rate of rise of on-state current ($I_G=2$ hI I_{GT} , $f=100Hz$, $T_j=125$)	di/dt	50	$A/\mu s$
Peak gate current ($t_p=20\mu s$, $T_j=125$)	I_{GM}	1	A

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' iY'			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

A7F%\$\$!*''

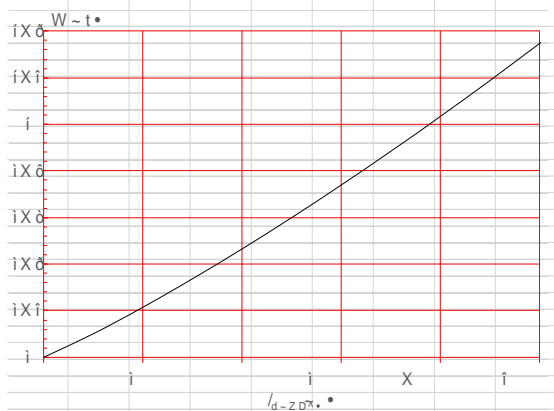


cY`YWhfcbjWg`7c"z'@hX"

D Z</E'



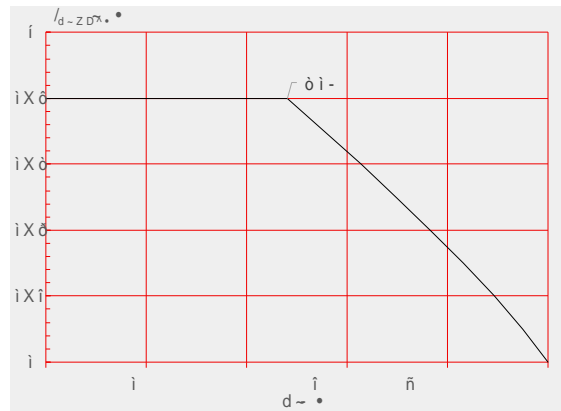
:: ; "%.'Maximum power dissipation versus RMS on-state current



:: ; "'.Surge peak on-state current versus number of cycles



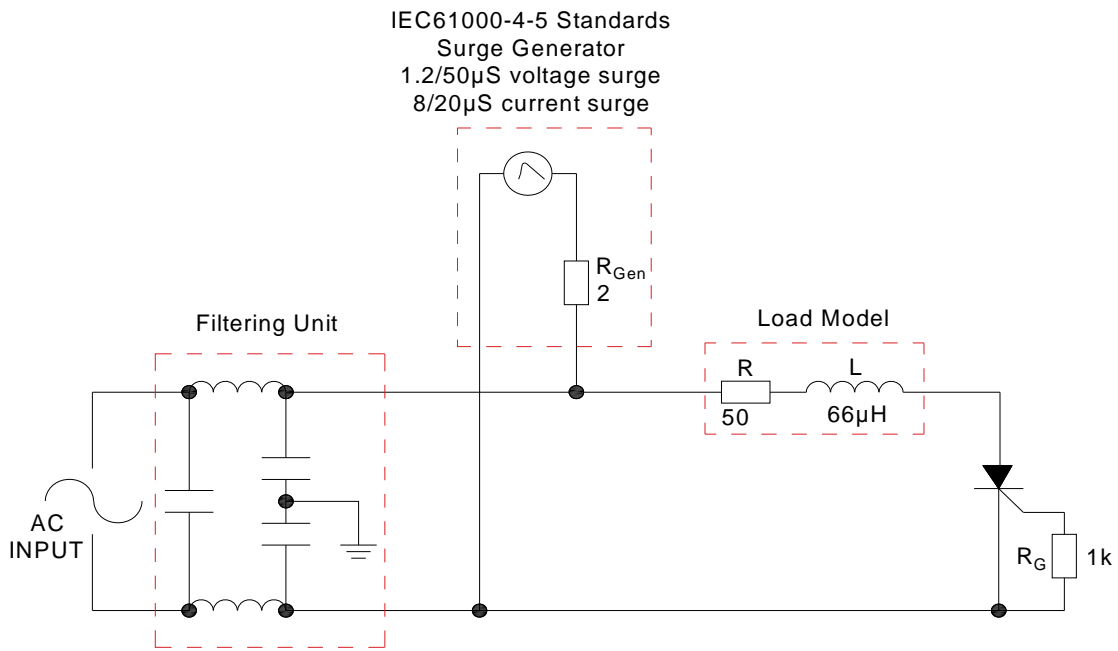
:: ; "&.'.RMS on-state current versus case temperature



:: ; " ('.On-state characteristics



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



> &KZD/E' E ^K> Z/E'

Refer to the application note "Assembly Instructions for Thyristors in Through-hole Package" released by JieJie D] OE} o šOE}v] •

A7F%\$\$!*''



>]Y>]Y'AJWfcY'YWhfcb]Wg'7c"z'@hX"

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

CfXYf'WcXY'	Jc`hU[Y' J _{8FA} #J _{FFA} flJL'	= ; Hfl 5L'	DUW_U[Y'	6UgY'ehm'' fldWgl'	8Y]jYfm' a cXY'
A7F%\$\$!*''	,\$\$'	@&\$\$'	HC!-&'	%z\$\$\$'	6 i`_'DUW_'
A7F%\$\$!*!HF'				&z\$\$\$'	HUdY'/'FYY'

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

Date	Revision	Changes
May.23, 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%\$\$!*''



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

W < ' D , E / > d



