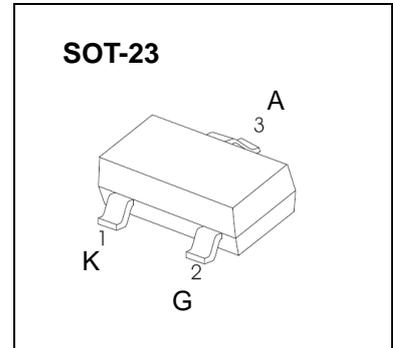


MCR100-6 Series 0.8A SENSITIVE SCRs

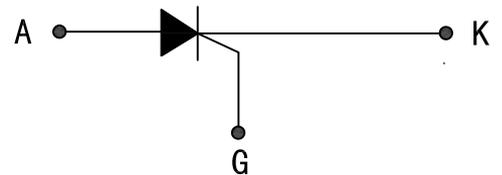
DESCRIPTION:

Highly sensitive triggering levels, the MCR100-6 Series SCRs is suitable for all applications, where the available gate current is limited, such as capacitive discharge ignitions, motor control in kitchen aids, overvoltage crowbar protection in low power supplies...



MAIN FEATURES

Symbol	Value	Unit
$I_T(AV)$	0.8	A
V_{DRM}/V_{RRM}	400	V
I_{GT}	≤ 200	μA



ABSOLUTE MAXIMUM RATINGS

Parameter		Symbol	Value	Unit
Storage junction temperature range		T_{stg}	- 40 to +150	$^{\circ}C$
Operating junction temperature range		T_j	- 40 to +110	$^{\circ}C$
Repetitive Peak Off-state Voltage	$T_j=25^{\circ}C$	V_{DRM}	400	V
Repetitive Peak Reverse Voltage	$T_j=25^{\circ}C$	V_{RRM}	400	V
RMS on-state current (180 conduction angle)	$T_c=77^{\circ}C$	$I_T(RMS)$	0.8	A
Average on-state current (180 conduction angle)	$T_c=77^{\circ}C$	$I_T(AV)$	0.5	A
Non repetitive surge peak on-state current ($T_j=25^{\circ}C$)	$t_p=10ms$	I_{TSM}	9	A
	$t_p=8.3ms$		10	A
I^2t Value for fusing	$t_p=10ms$	I^2t	0.415	A^2s
Peak gate current	$t_p=20\mu s, T_j=110^{\circ}C$	I_{GM}	0.2	A
Average gate power dissipation	$T_j=110^{\circ}C$	$P_{G(AV)}$	0.1	W

ELECTRICAL CHARACTERISTICS(T_j=25 °C unless otherwise specified)

Symbol	Test Condition		MCR100-6			Unit
			Min.	Typ.	Max.	
I _{GT}	V _D =6V R _L =100Ω		-	40	200	μA
V _{GT}			-	0.6	0.8	V
V _{GD}	V _D =V _{DRM} R _L =3.3KΩ R _{GK} =1KΩ T _j =110°C		0.2	-	-	V
I _L	I _G =1mA R _{GK} =1KΩ		-	-	6	mA
I _H	I _T =50mA R _{GK} =1KΩ		-	-	5	mA
V _{TM}	I _T = 1A t _p =380uS	T _j =25 °C	-	1.3	1.7	V
dV/dt	V _D =67%V _{DRM} R _{GK} =1KΩ	T _j =110 °C	10	-	-	V/μs
I _{DRM}	V _D = V _{DRM} R _{GK} =1KΩ	T _j =25 °C	-	-	5	μA
		T _j =110 °C	-	-	0.1	mA
I _{RRM}	V _R = V _{RRM} R _{GK} =1KΩ	T _j =25 °C	-	-	5	μA
		T _j =110 °C	-	-	0.1	mA

THERMAL RESISTANCES

Symbol	Parameter		Value	Unit
R _{th} (J -C)	Junction to Case	SOT-23	75	°C/W

ORDERING INFORMATION

