

Thyristors

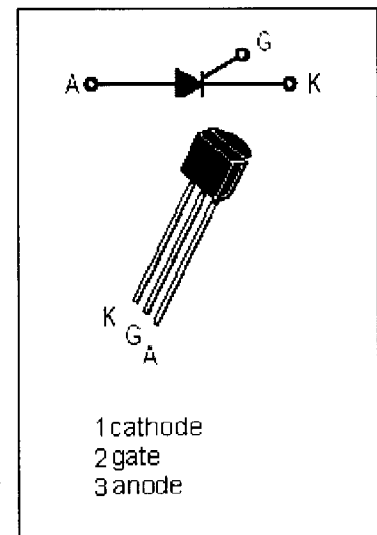
MCR100-6

FEATURES

- With TO-92 package
- Sensitive gate trigger current
- Low reverse and forward blocking current
- Low holding current
- Designed for high volume, line-powered consumer applications such as relay and lamp drivers, small motor controls, gate drivers for larger thyristors, and sensing and detection circuits.

ABSOLUTE MAXIMUM RATINGS($T_a=25^\circ\text{C}$)

SYMBOL	PARAMETER	MIN	UNIT
V_{DRM}	Repetitive peak off-state voltage	400	V
V_{RRM}	Repetitive peak off-state voltage	400	V
$I_{T(AV)}$	Average on-state current (180° conduction angle)	0.7	A
$I_{T(RMS)}$	RMS on-state current (180° conduction angle)	1	A
I_{TSM}	Peak Forward Surge Current, $T_A = 25^\circ\text{C}$ ($t_p=10\text{ms}$)	8	A
P_{GM}	Peak gate power	0.5	W
$P_{G(AV)}$	Average gate power	0.1	W
T_j	Operating junction temperature	110	$^\circ\text{C}$
T_{stg}	Storage temperature range	-45-150	$^\circ\text{C}$



ELECTRICAL CHARACTERISTICS ($T_c=25^\circ\text{C}$ unless otherwise specified)

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
I_{RRM}	Repetitive peak reverse current	$V_R = V_{RRM}$ $V_R = V_{RRM}; T_j = 110^\circ\text{C}$		10 200	μA
I_{DRM}	Repetitive peak off-state current	$V_D = V_{DRM}$ $V_D = V_{DRM}; T_j = 110^\circ\text{C}$		10 200	μA
I_{GT}	Gate trigger current	$V_D = 6\text{V}; R_L = 100\ \Omega$	10	120	μA
V_{TM}	On-state voltage	$I_T = 1.2\text{A}$		1.5	V
I_H	Holding current	$I_T = 0.1\text{A}$, Gate Open		3	mA
V_{GT}	Gate trigger voltage	$V_D = 12\text{V}; R_L = 100\ \Omega$		0.8	V

