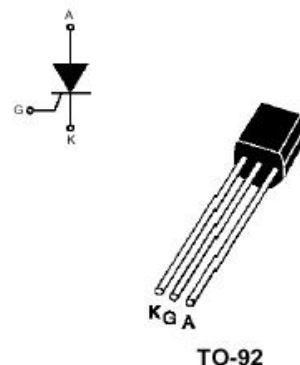


isc Thyristors

MCR100-6

FEATURES

- With TO-92 package
- Sensitive gate trigger current
- Low reverse and forward blocking current
- Low holding current
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

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

SYMBOL	PARAMETER	MIN	MAX	UNIT
V_{DRM}	Repetitive peak off-state voltage	400		V
V_{RRM}	Repetitive peak off-state voltage	400		V
$I_{\text{T(RMS)}}$	RMS on-state current(180° conduction angle)		0.8	A
I_{TSM}	Non-repetitive peak on-state current($(t_p=10\text{ms})$)		8	A
$I_{\text{T(AV)}}$	Average on-state current		0.5	A
I_{GM}	Peak gate current($(t_p=20\text{ }\mu\text{s})$)		1	A
I^2t	$I^2t(t_p=10\text{ms})$		0.35	A^2S
P_{GM}	Peak gate power		2	W
$P_{\text{G(AV)}}$	Average gate power		0.1	W
T_j	Operating junction temperature	-40	110	$^{\circ}\text{C}$
T_{stg}	Storage temperature range	-40	150	$^{\circ}\text{C}$

Thermal resistance

SYMBOL	PARAMETER	MAX	UNIT
$R_{\text{th (j-c)}}$	Junction to case	60	k/w
$R_{\text{th (j-a)}}$	Junction to ambient air	150	k/w

isc Thyristors**MCR100-6****ELECTRICAL CHARACTERISTICS (T_C=25°C unless otherwise specified)**

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP	MAX	UNIT
I _{RRM}	Repetitive peak reverse current	V _R = V _{RRM} V _R = V _{RRM} ; T _j = 110°C			10 100	μ A
I _{DRM}	Repetitive peak off-state current	V _D = V _{DRM} V _D = V _{DRM} ; T _j = 110°C			10 100	μ A
I _{GT}	Gate trigger current	V _D = 7V; R _L =100 Ω			200	μ A
V _{TM}	On-state voltage	I _T =1.0A, t _p =380 μ s			1.7	V
I _H	Holding current	I _T =0.1A, Gate Open		1	5	mA
V _{GT}	Gate trigger voltage	V _D = 7V; R _L =100 Ω			0.8	V

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