

isc Thyristors

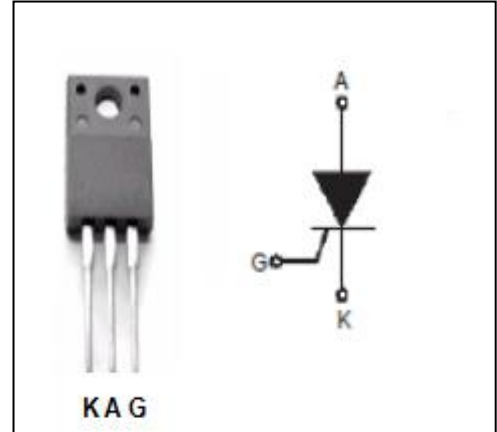
MCR225-10FP

DESCRIPTION

- With TO-220F packaging
- Long-term stability
- Thyristor for line frequency
- Planar passivated chip
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Switching applications
- AC power controller
- Motor control
- Power converter



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

SYMBOL	PARAMETER	MIN	UNIT
V_{DRM}	Repetitive peak off-state voltage	800	V
V_{RRM}	Repetitive peak reverse voltage	800	V
$I_{T(AV)}$	Average forward current $T_c=85^{\circ}\text{C}$	25	A
I_{TSM}	Surge non-repetitive on-state current (1/2 cycle, 60HZ, sine wave; $T_c=70^{\circ}\text{C}$)	340	A
$P_{G(AV)}$	Average gate power dissipation	0.5	W
T_j	Operating junction temperature	-40~125	$^{\circ}\text{C}$
T_{stg}	Storage temperature	-40~150	$^{\circ}\text{C}$

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

SYMBOL	PARAMETER	CONDITIONS		MIN	MAX	UNIT
I_{RRM}	Repetitive peak reverse current	$V_{RM}=V_{RRM}$ $V_{DM}=V_{DRM}$	$T_j=25^{\circ}\text{C}$		0.01	mA
I_{DRM}	Repetitive peak off-state current		$T_j=125^{\circ}\text{C}$			
V_{TM}	On-state voltage	$I_{TM}=50\text{A}$			1.8	V
I_{GT}	Gate-trigger current	$V_D=12\text{V}, R_L=100\ \Omega$			40	mA
V_{GT}	Gate-trigger voltage	$V_D=12\text{V}, R_L=100\ \Omega$			1.5	V
$R_{th(j-c)}$	Thermal resistance	Junction to case			1.5	$^{\circ}\text{C}/\text{W}$

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