

isc Thyristors

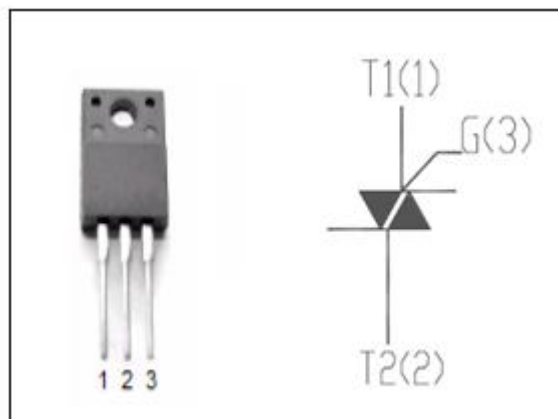
BT138X-800E

DESCRIPTION

- With TO-220F packaging
- Operating in 4 quadrants
- High commutation capability
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Solid state relays; heating and cooking appliances
- Switching applications


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

SYMBOL	PARAMETER		MAX	UNIT
V_{DRM}	Repetitive peak off-state voltage		800	V
V_{RRM}	Repetitive peak reverse voltage		800	V
$I_{\text{T(RSM)}}$	Average on-state current	@ $T_c=56^{\circ}\text{C}$	12	A
I_{TSM}	Surge non-repetitive on-state current	50HZ 60HZ	95 105	A
$P_{\text{G(AV)}}$	Average gate power dissipation (over any 20 ms period)		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 _R =V _{RRM} Rated; V _D =V _{DRM} Rated;	T _J =125℃		500	μ A
I _{DRM}	Repetitive peak off-state current					
V _{TM}	On-state voltage	I _T =15A			1.65	V
I _{GT}	Gate-trigger current	V _D =12V;I _{GT} =0.1A	I		10	mA
			II		10	
			III		10	
			IV		25	
V _{GT}	Gate-trigger voltage	V _D =12V;I _{GT} =0.1A			1.5	V
R _{th} (j-c)	Junction to case	Half cycle			4.0	℃/W

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