

isc Thyristors

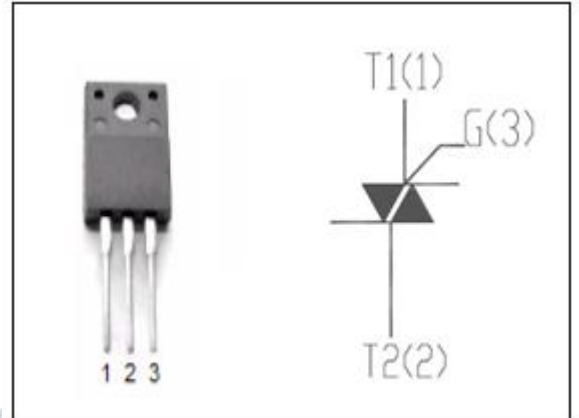
BT138X-800E

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°C)

SYMBOL	PARAMETER	MAX	UNIT
V _{DRM}	Repetitive peak off-state voltage	800	V
V _{RRM}	Repetitive peak reverse voltage	800	V
I _{T(RSM)}	Average on-state current @T _c =56°C	12	A
I _{TSM}	Surge non-repetitive on-state current	95 105	A
P _{G(AV)}	Average gate power dissipation (over any 20 ms period)	0.5	W
T _j	Operating junction temperature	-40~125	°C
T _{stg}	Storage temperature	-40~150	°C

ELECTRICAL CHARACTERISTICS (T_c=25°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°C		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	°C/W

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