

isc Thyristors

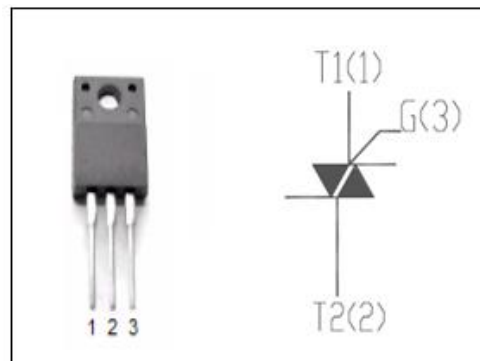
BT139X-800

DESCRIPTION

- With TO-220F packaging
- Operating in 4 quadrants
- Very high commutation performance maximized at each gate sensitivity
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Motor control, industrial and domestic lighting, heating and static switching.



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
$I_{T(AV)}$	Average on-state current	16	A
I_{TSM}	Surge non-repetitive on-state current @ $t=20\text{ms}$	140	A
$P_{G(AV)}$	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;	$T_j=125^\circ\text{C}$		0.5	mA
I_{DRM}	Repetitive peak off-state current					
V_{TM}	On-state voltage	$I_T=20\text{A}$			1.6	V
I_{GT}	Gate-trigger current	$V_D=12\text{V}; I_T=0.1\text{A}$	I		35	mA
			II		35	
			III		35	
			IV		70	
V_{GT}	Gate-trigger voltage	$V_D=12\text{V}; I_T=0.1\text{A}$			1.5	V

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