

## isc Thyristors

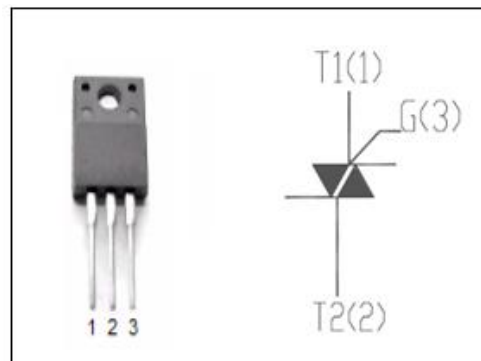
## BT139X-800

### 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
$V_{\text{DRM}}$	Repetitive peak off-state voltage	800	V
$V_{\text{RRM}}$	Repetitive peak reverse voltage	800	V
$I_{\text{T(AV)}}$	Average on-state current	16	A
$I_{\text{TSM}}$	Surge non-repetitive on-state current @ $t=20\text{ms}$	140	A
$P_{\text{G(AV)}}$	Average gate power dissipation, over any 20 ms period	0.5	W
$T_j$	Operating junction temperature	-40~125	$^{\circ}\text{C}$
$T_{\text{stg}}$	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 <sub>RRM</sub>	Repetitive peak reverse current	V <sub>R</sub> =V <sub>RRM</sub> Rated; V <sub>D</sub> =V <sub>DRM</sub> Rated;	T <sub>J</sub> =125°C		0.5	mA
I <sub>DRM</sub>	Repetitive peak off-state current					
V <sub>TM</sub>	On-state voltage	I <sub>T</sub> =20A			1.6	V
I <sub>GT</sub>	Gate-trigger current	V <sub>D</sub> =12V;I <sub>T</sub> =0.1A	I		35	mA
			II		35	
			III		35	
			IV		70	
V <sub>GT</sub>	Gate-trigger voltage	V <sub>D</sub> =12V;I <sub>T</sub> =0.1A			1.5	V

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