

isc Thyristors

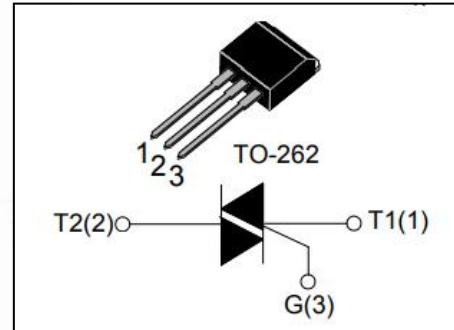
BTA312G-600CT

DESCRIPTION

- 3Q technology for improved noise immunity
- High operating junction temperature
- High voltage capability
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Applications subject to high temperature
- Electronic thermostats (heating and cooling)
- High power motor controls e.g. washing machines and vacuum cleaners



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

SYMBOL	PARAMETER	MIN	UNIT
V_{DRM}	Repetitive peak off-state voltage	600	V
V_{RRM}	Repetitive peak reverse voltage	600	V
$I_{T(RMS)}$	RMS on-state current	12	A
I_{TSM}	Surge non-repetitive on-state current , $t_p=20\text{ms}$	100	A
T_j	Operating junction temperature	-40~150	$^\circ\text{C}$
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;	$T_j=150^\circ\text{C}$	2	mA
I_{DRM}	Repetitive peak off-state current				
V_{TM}	On-state voltage	$I_T=15\text{A}$		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	
V_{GT}	Gate-trigger voltage	$V_D = 12\text{V}; I_T = 0.1\text{A};$		1.5	V
I_H	Holding current	$V_D = 12\text{V}; I_T = 0.1\text{A};$		35	mA