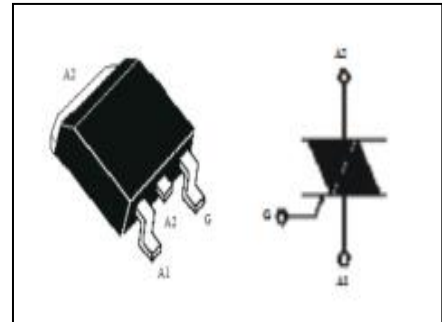


**isc Thyristors**
**BT138B-600E**
**DESCRIPTION**

- With TO-263( D2PAK ) packaging
- Operating in 4 quadrants
- High commutation capability
- Minimum Lot-to-Lot variations for robust device performance and reliable operation


**APPLICATIONS**

- Switching applications
- Phase control
- Static switching on inductive or resistive load

**ABSOLUTE MAXIMUM RATINGS(T<sub>a</sub>=25°C)**

SYMBOL	PARAMETER		MAX	UNIT
V <sub>DRM</sub>	Repetitive peak off-state voltage		600	V
V <sub>RRM</sub>	Repetitive peak reverse voltage		600	V
I <sub>T(RSM)</sub>	Average on-state current		12	A
I <sub>TSM</sub>	Surge non-repetitive on-state current	50HZ 60HZ	95 105	A
P <sub>G(AV)</sub>	Average gate power dissipation ( over any 20 ms period )		0.5	W
T <sub>j</sub>	Operating junction temperature		-40~125	°C
T <sub>stg</sub>	Storage temperature		-40~150	°C

**ELECTRICAL CHARACTERISTICS (T<sub>c</sub>=25°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> =15A			1.65	V
I <sub>GT</sub>	Gate-trigger current	V <sub>D</sub> = 12V; I <sub>T</sub> =0.1A;	I		10	mA
			II		10	
			III		10	
			IV		25	
V <sub>GT</sub>	Gate-trigger voltage	V <sub>D</sub> = 12V; I <sub>T</sub> =0.1A;			1.5	V
R <sub>th(j-mb)</sub>	Junction to mounting base	Half cycle			2.0	°C/W

**NOTICE:**

ISC reserves the rights to make changes of the content herein the datasheet at any time without notification. The information contained herein is presented only as a guide for the applications of our products.

ISC products are intended for usage in general electronic equipment. The products are not designed for use in equipment which require specialized quality and/or reliability, or in equipment which could have applications in hazardous environments, aerospace industry, or medical field. Please contact us if you intend our products to be used in these special applications.

ISC makes no warranty or guarantee regarding the suitability of its products for any particular purpose, nor does ISC assume any liability arising from the application or use of any products, and specifically disclaims any and all liability, including without limitation special, consequential or incidental damages.