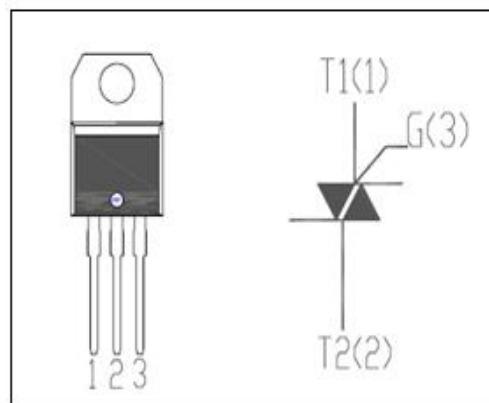


**isc Thyristors**
**BTA412Y-600ET**
**DESCRIPTION**

- With TO-220 packaging
- High operating junction temperature
- Very high commutation performance maximized at each gate sensitivity
- Minimum Lot-to-Lot variations for robust device performance and reliable operation


**APPLICATIONS**

- High temperature, high power motor control
- Solid state relays; heating and cooking appliances
- Switching applications

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

SYMBOL	PARAMETER		MIN	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(RMS)</sub>	RMS on-state current	@T <sub>c</sub> =118°C	12	A
I <sub>TSM</sub>	Surge non-repetitive on-state current	50HZ 60HZ	140 150	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		-40~150	°C
T <sub>stg</sub>	Storage temperature		-40~150	°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;	$T_j=25^\circ\text{C}$ $T_j=125^\circ\text{C}$		0.01 2	mA
$I_{DRM}$	Repetitive peak off-state current					
$V_{TM}$	On-state voltage	$I_T=17\text{A}, t_p=380\ \mu\text{s}$			1.6	V
$I_{GT}$	Gate-trigger current	$V_D=12\text{V}; I_T=0.1\text{A}$		I	10	mA
				II	10	
				III	10	
$V_{GT}$	Gate-trigger voltage	$V_D=12\text{V}; I_T=0.1\text{A}$			1	V

**NOTICE:**

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