

## TO-220AB Plastic-Encapsulate Thyristors

### BT137 TRIAC

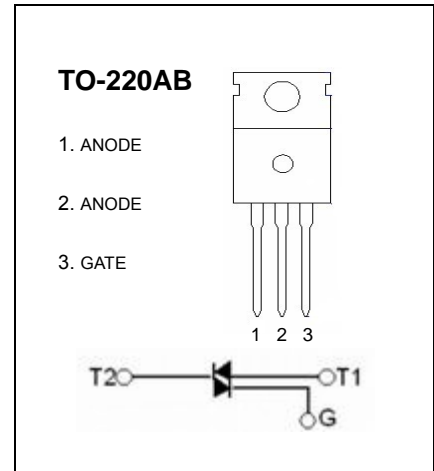
#### MAIN FEATURES

Symbol	value	unit
$I_{T(RMS)}$	8	A
$V_{DRM}/V_{RRM}$	600	V
$I_{TSM}$	25	A

#### GENERAL DESCRIPTION

Glass passivated triacs in a plastic envelope , intended for use in applications requiring high bidirectional transient and blocking voltage capability and high thermal cycling performance.

Typical applications include motor control, industrial and domestic lighting , heating and static switching.



#### ABSOLUTE MAXIMUM RATINGS (Ta=25°C unless otherwise noted)

symbol	parameter			value	unit
$I_{T(RMS)}$	RMS on-state current (full sine wave)	D <sup>2</sup> PAK/TO-220	T <sub>C</sub> =107°C	8	A
$I_{TSM}$	Non repetitive surge peak on-state current (full sine wave, T <sub>j</sub> =25°C)	t=20ms		25	A
		t=16.7ms		27	
$I_{GM}$	Peak gate current			2	A
$P_{G(AV)}$	Average gate power dissipation		T <sub>j</sub> =125°C	0.5	W
T <sub>stg</sub>	Storage junction temperature range			-40 to +150	°C
T <sub>j</sub>	Operating junction temperature range			-40 to +125	

#### ELECTRICAL CHARACTERISTICS (Ta=25°C unless otherwise specified)

Parameter		Symbol	Test conditions	Min	Max	Unit
Rated repetitive peak off-state/reverse voltage		$V_{DRM}, V_{RRM}$	$I_D=10\mu A$	600		V
Rated repetitive peak off-state current		$I_{DRM}, I_{RRM}$	$V_D=620V$		10	$\mu A$
On-state voltage		$V_{TM}$	$I_T=5A$		1.7	V
Gate trigger current	I	$I_{GT}$	T <sub>2</sub> (+), G(+)	$V_D=12V$ $R_L=100\Omega$	10	mA
	II		T <sub>2</sub> (+), G(-)		10	mA
	III		T <sub>2</sub> (-), G(-)		10	mA
	IV		T <sub>2</sub> (-), G(+)		25	mA
Gate trigger voltage	I	$V_{GT}$	T <sub>2</sub> (+), G(+)	$V_D=12V$ $R_L=100\Omega$	1.45	V
	II		T <sub>2</sub> (+), G(-)		1.45	V
	III		T <sub>2</sub> (-), G(-)		1.45	V
	IV		T <sub>2</sub> (-), G(+)		2	V
Holding current		$I_H$	$I_T=100mA$ $I_G=20mA$		20	mA