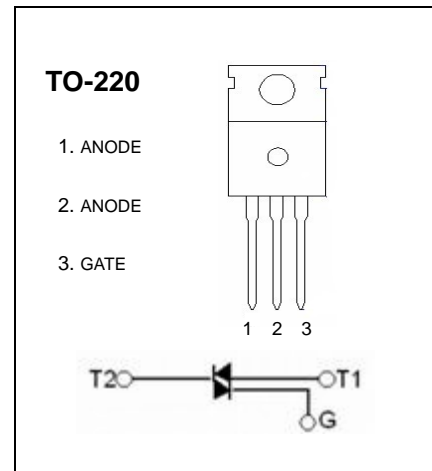


TO-220 Plastic-Encapsulate Thyristors

BT136-600E TRIAC

MAIN FEATURES

Symbol	value	unit
$I_{T(RMS)}$	4	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 ² PAK/TO-220	T _C =107°C	4	A
I_{TSM}	Non repetitive surge peak on-state current (full sine wave, T _j =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 _j =125°C	0.5	W
T _{stg}	Storage junction temperature range			-40 to +150	°C
T _j	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	μA
On-state voltage		V_{TM}	$I_T=5A$		1.7	V
Gate trigger current	I	I_{GT}	T ₂ (+), G(+)	$V_D=12V$ $R_L=100\Omega$	10	mA
	II		T ₂ (+), G(-)		10	mA
	III		T ₂ (-), G(-)		10	mA
	IV		T ₂ (-), G(+)		20	mA
Gate trigger voltage	I	V_{GT}	T ₂ (+), G(+)	$V_D=12V$ $R_L=100\Omega$	1.45	V
	II		T ₂ (+), G(-)		1.45	V
	III		T ₂ (-), G(-)		1.45	V
	IV		T ₂ (-), G(+)		1.70	V
Holding current		I_H	$I_T=100mA$ $I_G=20mA$		20	mA

Typical Characteristics

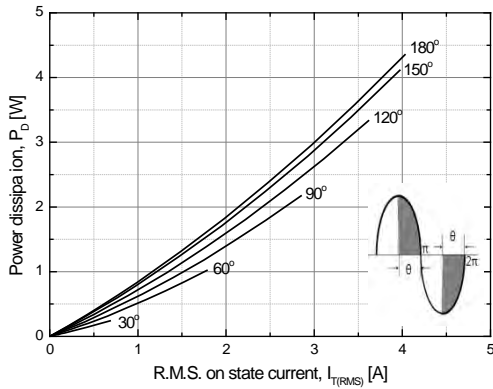


Fig 1. R.M.S. current vs. Power dissipation

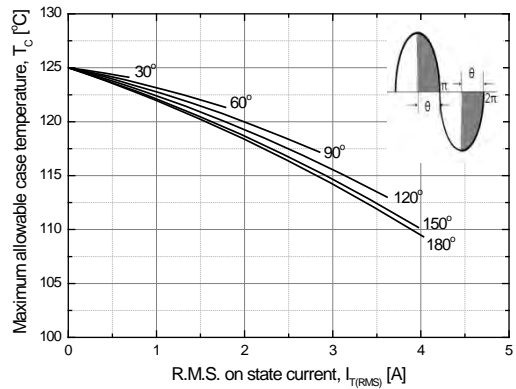


Fig 2. R.M.S. current vs. Case temperature

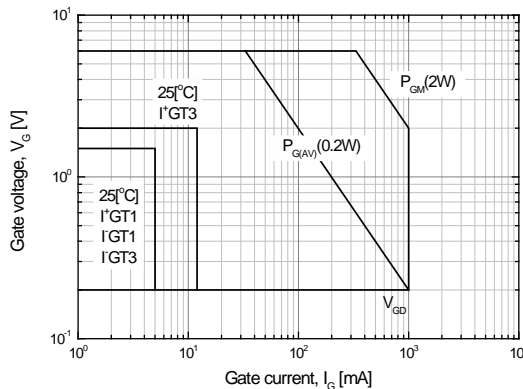


Fig 3. Gate power characteristics

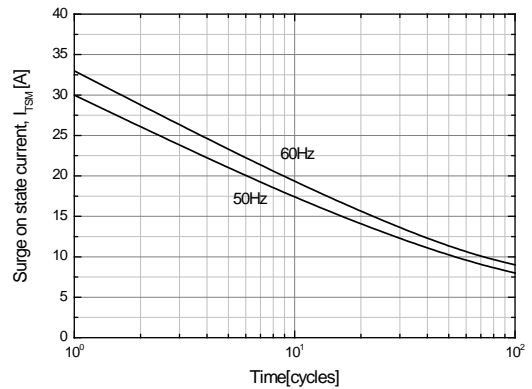


Fig 4. Surge on state current rating (Non-repetitive)

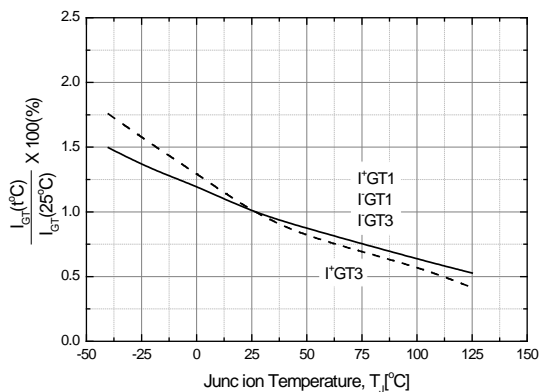


Fig 5. Gate trigger current vs. junction temperature

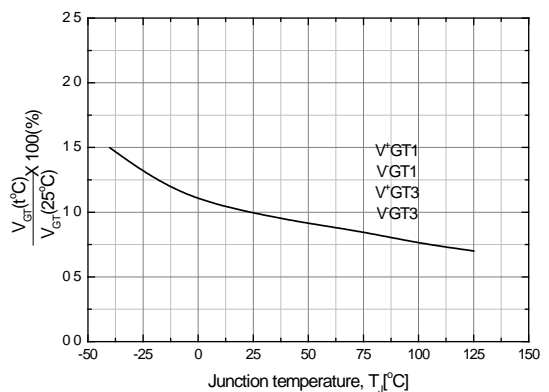


Fig 6. Gate trigger voltage vs. junction temperature

Typical Characteristics

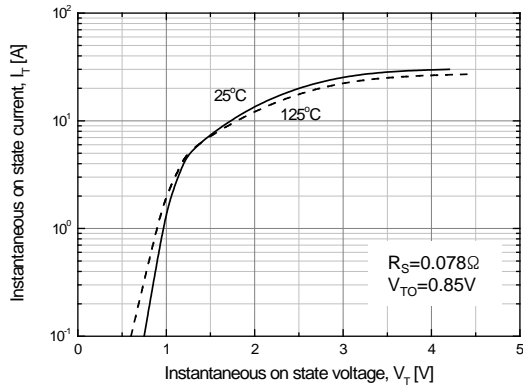


Fig 7. Instantaneous on state current vs. Instantaneous on state voltage

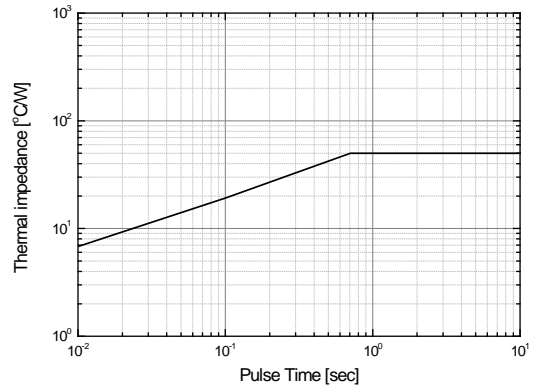
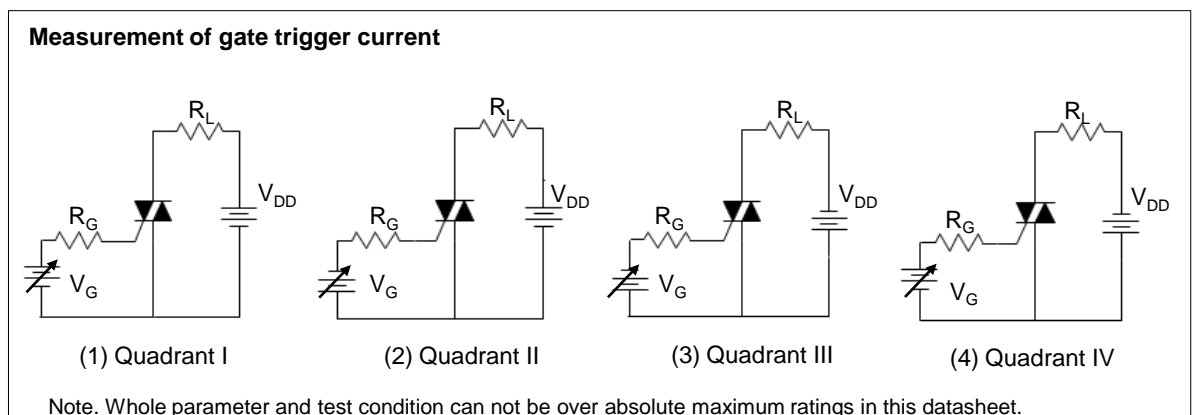


Fig 8. Thermal Impedance vs. pulse time



Package Dimension

TO-220

