

# TO-220-3L Plastic-Encapsulate Thyristors

## BT136 TRIAC

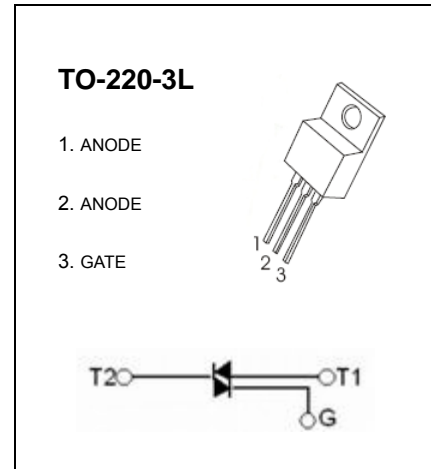
### MAIN FEATURES

Symbol	value	unit
$I_{T(RMS)}$	6	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.



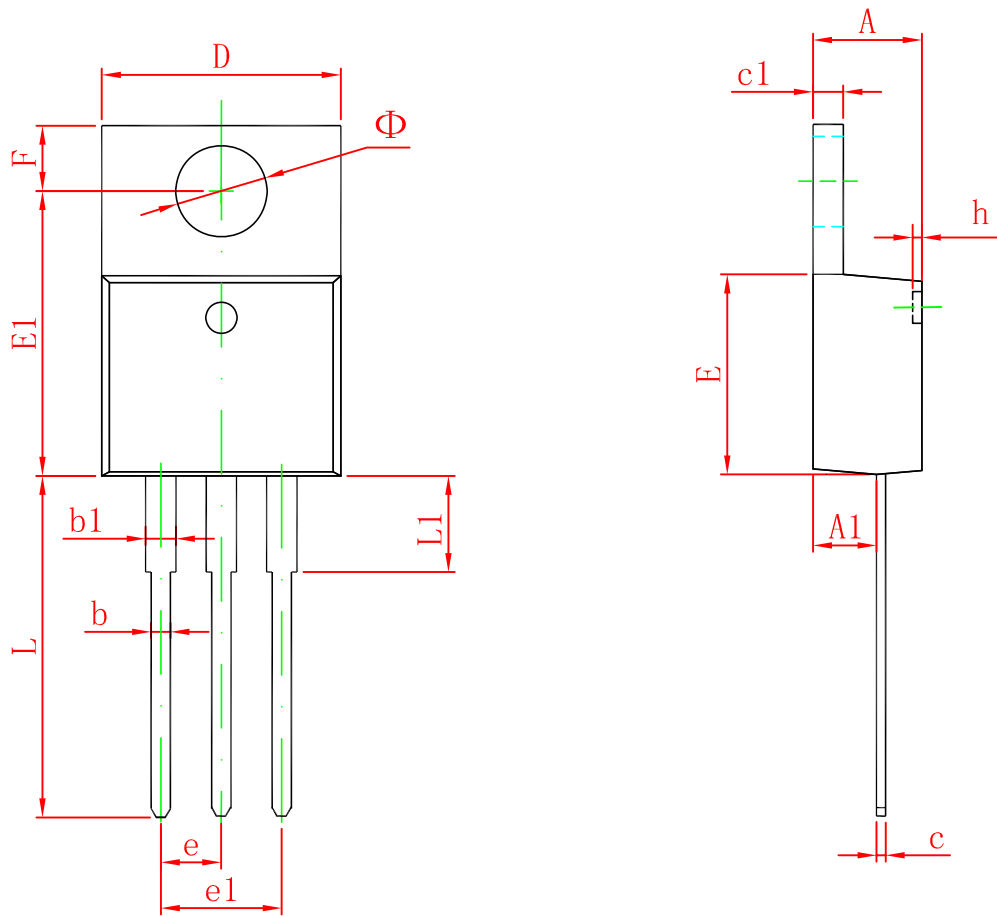
### ABSOLUTE MAXIMUM RATINGS (Ta=25°C unless otherwise noted)

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	6	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(+)		-	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(+)		-	V
Holding current		$I_H$	$I_T=100mA$ $I_G=20mA$		20	mA

# TO-220-3L Package Outline Dimensions



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	4.470	4.670	0.176	0.184
A1	2.520	2.820	0.099	0.111
b	0.710	0.910	0.028	0.036
b1	1.170	1.370	0.046	0.054
c	0.310	0.530	0.012	0.021
c1	1.170	1.370	0.046	0.054
D	10.010	10.310	0.394	0.406
E	8.500	8.900	0.335	0.350
E1	12.060	12.460	0.475	0.491
e	2.540 TYP		0.100 TYP	
e1	4.980	5.180	0.196	0.204
F	2.590	2.890	0.102	0.114
h	0.000	0.300	0.000	0.012
L	13.400	13.800	0.528	0.543
L1	3.560	3.960	0.140	0.156
$\Phi$	3.735	3.935	0.147	0.155