

MAIN FEATURES

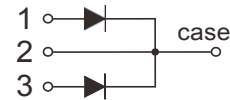
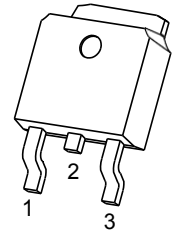
Symbol	value	unit
$I_{T(RMS)}$	4	A
V_{DRM}/V_{RRM}	600 800	V
I_{TSM}	120	A

GENERAL DESCRIPTION

Glass passivated triacs in 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.

TO-252-2L

1. ANODE
2. CATHODE
3. ANODE



Marking



BTB04= Company and Device code
 Solid dot = Green molding compound device,
 if none, the normal device
 800E: $V_{DRM}/V_{RRM}=800V$
 XXX=Code

ABSOLUTE MAXIMUM RATINGS($T_a=25^\circ C$ unless otherwise noted)

Symbol	Parameter	Value		Unit
		600E	800E	
V_{DRM}/V_{RRM}	Repetitive peak off-state voltage	600	800	V
$I_{T(RMS)}$	RMS on-state current(full sine wave)	4		A
I_{TSM}	Non repetitive surge peak on-state current(full sine wave, $T_j=25^\circ C$)	120		A
I_{GM}	Peak gate current	4		A
I^2t	I^2t for fusing	72		A^2S
$P_{G(AV)}$	Average gate Power Dissipation	10		W
V_{GT}	Peak gate voltage	1.9		V
Di/dt	Repetitive rate of rise of on-state current after triggering	50		$A/\mu s$
T_j	Junction Temperature	-40 to 125		$^\circ C$
T_{stg}	Storage Temperature	-40 to 150		$^\circ C$

**ELECTEICAL CHARACTERISTICS(Ta=25°C unless otherwise specified)**

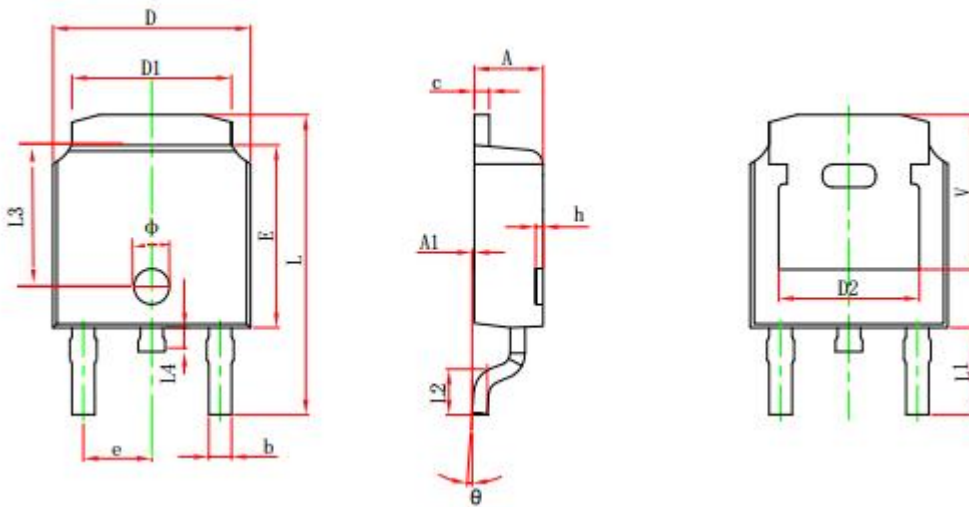
Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
III Quadrant						
Gate trigger current	IGT	V _D =12V;R _L =100Ω	I II III		50	mA
Gate trigger voltage	VGT	V _D =12V;R _L =100Ω	I II III		1.5	V
Non-triggering gate voltage	VGD	T _j =125°C	I II III	0.2		V
Holding current	I _H	I _T =0.5A			40	mA
Thyristor holds up current	I _L	I _G =1.2I _{GT}			30	mA
					40	
Critical rise rate of off-state voltage	dV/dt	V _D =67%V _{DRM(max)} ;T _j =125°C	500			V/μs

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
IV Quadrant						
Gate trigger current	IGT	V _D =12V;R _L =100Ω	I II III		50	mA
			IV		80	
Gate trigger voltage	VGT	V _D =12V;R _L =100Ω	I II III		1.5	V
			IV			
Non-triggering gate voltage	VGD	T _j =125°C	I II III	0.2		V
			IV			
Holding current	I _H	I _T =0.5A			40	mA
Thyristor holds up current	I _L	V _D =12V;I _G =1.2I _{GT}			30	mA
					40	
Critical rise rate of off-state voltage	dV/dt	V _D =67%V _{DRM(max)} ;T _j =125°C	500			V/μs

STATIC PARANETERS

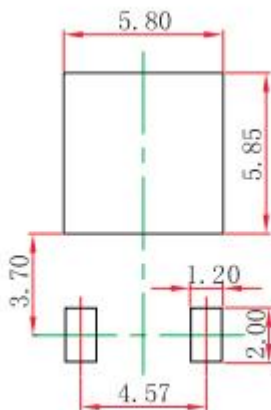
Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Peak on-state voltage drop	V _{TM}	I _{TM} =36A;T _j =25°C			1.5	V
On state threshold voltage	V _{T0}	T _j =125°C			0.86	V
Peak forward reverse blocking current	I _{DRM}	T _j =25°C			5	μA
	I _{RRM}	T _j =125°C			1	mA
Thermal Resistance Junction to case	R _{th(j-c)}	BTa			2.05	°C/W
		BTB			1..25	

TO-252-2L Package Outline Dimensions



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	2.200	2.400	0.087	0.094
A1	0.000	0.127	0.000	0.005
b	0.635	0.770	0.025	0.030
c	0.460	0.580	0.018	0.023
D	6.500	6.700	0.256	0.264
D1	5.100	5.460	0.201	0.215
D2	4.830 REF.		0.190 REF.	
E	6.000	6.200	0.236	0.244
e	2.186	2.386	0.086	0.094
L	9.712	10.312	0.382	0.406
L1	2.900 REF.		0.114 REF.	
L2	1.400	1.700	0.055	0.067
L3	4.460 REF.		0.1756 REF.	
L4	0.600	1.000	0.024	0.039
Φ	1.100	1.300	0.043	0.051
θ	0°	8°	0°	8°
h	0.000	0.300	0.000	0.012
V	5.250 REF.		0.207 REF.	

TO-252-2L Suggested Pad Layout



Note:

1. Controlling dimension: in millimeters.
2. General tolerance: $\pm 0.05\text{mm}$.
3. The pad layout is for reference purposes only.