



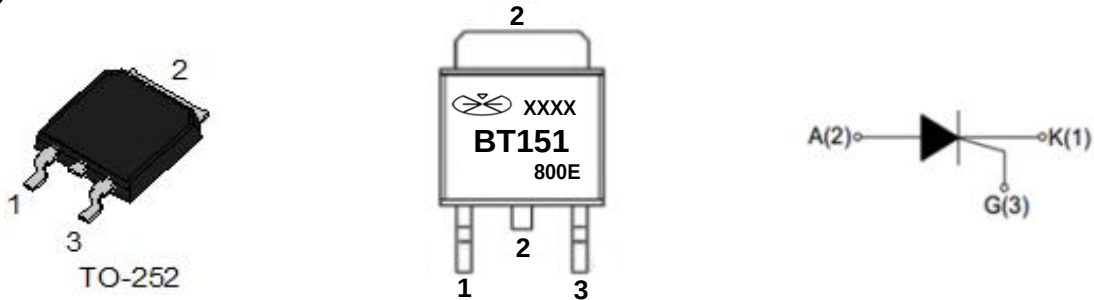
BT151

8A Triac

MAIN FEATURES

Symbol	value	unit
$I_{T(RSM)}$	8	A
V_{DRM}/V_{RRM}	800	V
I_{TSM}	80	A

Package



Package Marking and Ordering Information

Product ID	PACK	Qty (pcs)
BT151	TO-252	2500

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

Symbol	Parameter	Value	Unit
		800E	
V_{DRM}/V_{RRM}	Repetitive peak off-state voltage	800	V
$I_{T(RMS)}$	RMS on-state current($T_c=90^{\circ}\text{C}$)	8	A
I_{TSM}	Non repetitive surge peak on-state current	$T=20\text{ms}$ 80	A
I_{GM}	Peak gate current	$t_p=20\mu\text{s}$ 4	A
I^2t	I^2t for fusing	$t_p=10\text{ms}$ 64	A^2S
$P_{G(AV)}$	Average gate Power Dissipation	$T_j=125^{\circ}\text{C}$ 1	W
di/dt	Repetitive rate of rise of on-state current after triggering	50	$\text{A}/\mu\text{s}$
T_j	Junction Temperature	-40 to 125	$^{\circ}\text{C}$
T_{stg}	Storage Temperature	-40 to 150	$^{\circ}\text{C}$



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ELECTEICAL CHARACTERISTICS(Ta=25℃ unless otherwise specified)

Parameter	Symbol	Test conditions		Min	Typ	Max	Unit
Gate trigger current	IGT	VD=12V;RL=100Ω	I			15	mA
Gate trigger voltage	VGT					1.5	V
Non-triggering gate voltage	VGD	Tj=125℃		0.2			V
Holding current	IH	IT=0.5A				2	mA
Thyristor holds up current	IL	IG=1.2IGT	I			30	mA
						40	
Critical rise rate of off-state voltage	dV/dt	VD=67%VDRM(max);Tj=125℃		500			V/μs

STATIC CHARACTERISTICS

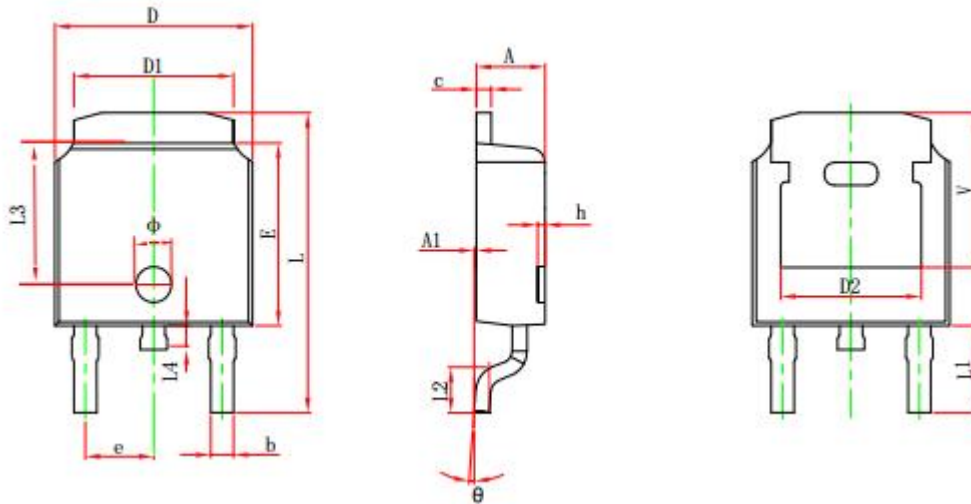
Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Peak on-state voltage drop	VTM	ITM=24A;Tj=25℃			1.5	V
On state threshold voltage	VT0	Tj=125℃			0.86	V
Peak forward reverse blocking current	IDRM	Tj=25℃			5	μA
	IRRM	Tj=125℃			1	mA
Thermal Resistance Junction to case	Rth(j-c)	BTB			1.75	℃/W

IGT Range

IGT	3-4mA	4-5mA	5-6mA
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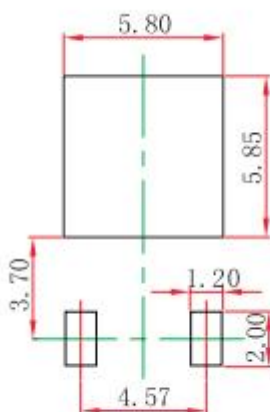


TO-252-2L Package Outline Dimensions



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.