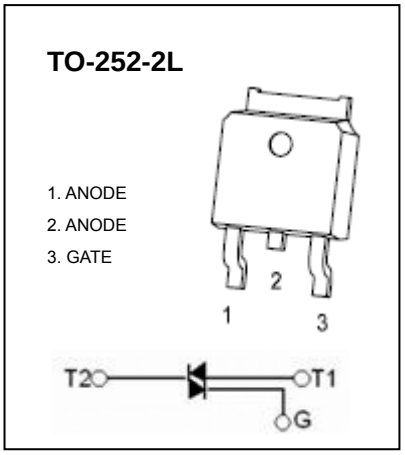
TO-252-2L Plastic-Encapsulate Thyristors

BT137S TRIAC



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.

MAIN FEATURES

Symbol	parameter	Max	Max	Max	Unit
V_{DRM}/V_{RRM}	BT137S	500	600	800	V
	BT137S	500F	600F	800F	
	BT137S	500G	600G	800G	
	Repetitive peak off-state/**reverse** voltage	500	600	800	
$I_{T(RMS)}$	RMS on-state current	8	8	8	A
I_{TSM}	Non-repetitive peak on-state current	65	65	65	A

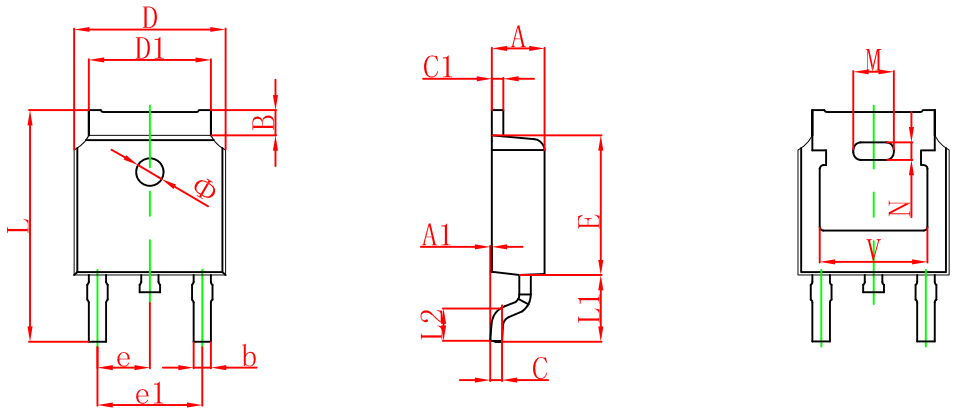
ABSOLUTE MAXIMUM RATINGS

Symbol	**Parameter**	**Conditions**	**Value**	**unit**
$I_{T(RMS)}$	RMS on state current	full sine wave, Tj ≤102℃	8	A
I_{TSM}	Non-repetitive peak on- state current	full sine wave, Tj =25℃ Prior to surge t=20ms t=16.7ms	 65 71	 A A
I_{GM}	Peak gate current		2	A
$P_{G(AV)}$	Average gate power	Over any 20ms period	0.5	W
Tstg	Storage temperature range		-40~150	℃
T_j	Operating temperature		125	℃

ELECTRICAL CHARACTERISTICS (T_a=25℃ unless otherwise specified)

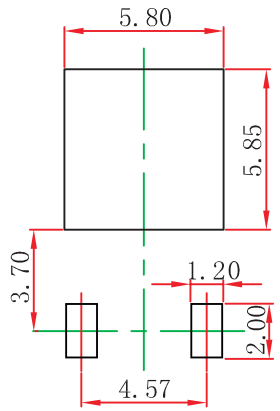
Symbol	Parameter	Conditions	Min	Typ	Max			Unit
					---	---F	---G	
I_{GT}	Gate trigger current	V_D=12V,I_T=0.1A						
		T2+ G+		5	35	25	50	mA
		T2+ G-		8	35	25	50	mA
		T2- G-		11	35	25	50	mA
		T2- G+		30	70	70	100	mA
I_L	Latching current	V_D=12V,I_{GT}=0.1A						
		T2+ G+		7	30	30	45	mA
		T2+ G-		16	45	45	60	mA
		T2- G-		5	30	30	45	mA
		T2- G+		7	45	45	60	mA
I_H	Holding current	V_D=12V,I_{GT}=0.1A		5	20	20	40	mA
V_T	On-state voltage	I_T=10A		1.3	1.65			V
V_{GT}	Gate trigger voltage	V_D=12V,I_T=0.1A		0.7	1.5			V
		V_D=400V,I_T=0.1A;T_j=125℃	0.25	0.4				
I_D	Off-state leakage current	V_D=$V_{DRM(max)}$; T_j=125℃		0.1	0.5			mA

TO-252(4R)-2L Package Outline Dimensions



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	2.200	2.380	0.087	0.094
A1	0.000	0.100	0.000	0.004
B	0.800	1.400	0.031	0.055
b	0.710	0.810	0.028	0.032
c	0.460	0.560	0.018	0.022
c1	0.460	0.560	0.018	0.022
D	6.500	6.700	0.256	0.264
D1	5.130	5.460	0.202	0.215
E	6.000	6.200	0.236	0.244
e	2.286 TYP.		0.090 TYP.	
e1	4.327	4.727	0.170	0.186
M	1.778REF.		0.070REF.	
N	0.762REF.		0.018REF.	
L	9.800	10.400	0.386	0.409
L1	2.9REF.		0.114REF.	
L2	1.400	1.700	0.055	0.067
V	4.830 REF.		0.190 REF.	
Φ	1.100	1.300	0.043	0.051

TO-252(4R)-2L Suggested Pad Layout



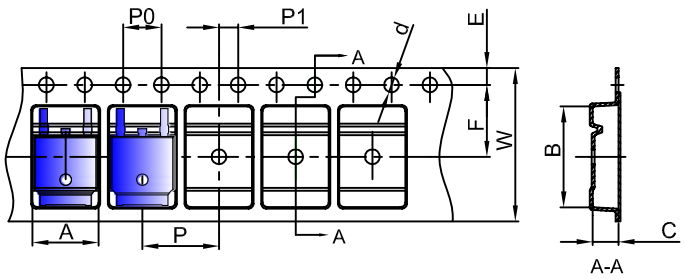
Note:
1.Controlling dimension:in millimeters.
2.General tolerance:± 0.05mm.
3.The pad layout is for reference purposes only.

NOTICE

JCET reserve the right to make modifications,enhancements, improvements, corrections or other changes without further notice to any product herein.JCET does not assume any liability arising out of the application or use of any product described herein.

TO-252 Tape and reel

TO-252 Embossed Carrier Tape

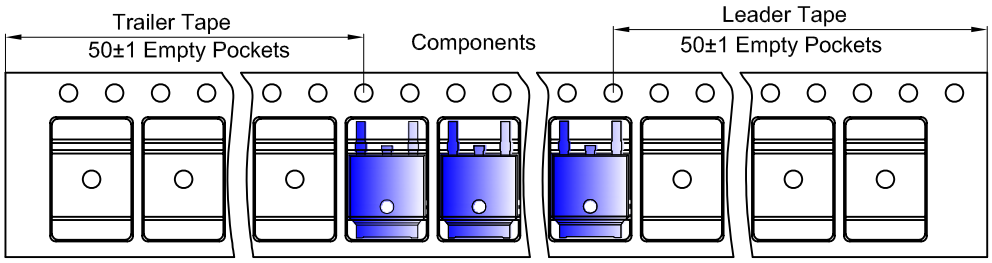


Packaging Description:

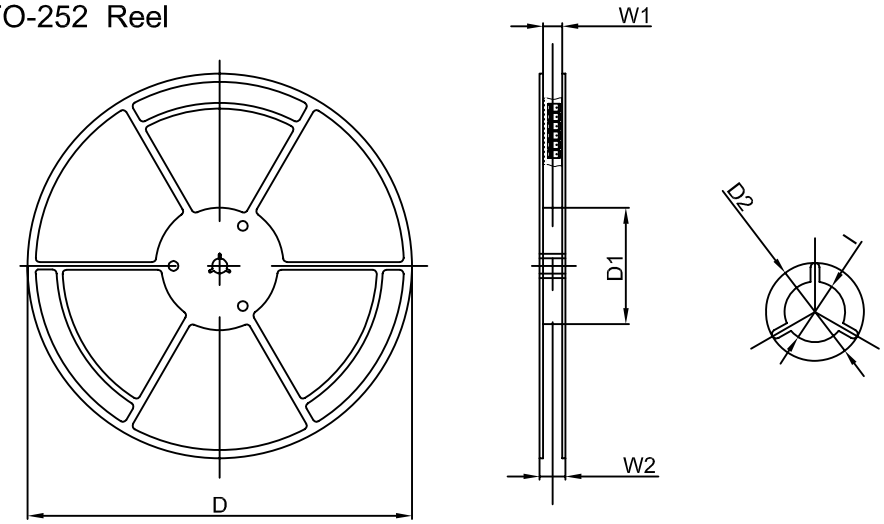
TO-252 parts are shipped in tape. The carrier tape is made from a dissipative (carbon filled) polycarbonate resin. The cover tape is a multilayer film (Heat Activated Adhesive in nature) primarily composed of polyester film, adhesive layer, sealant, and anti-static sprayed agent. These reeled parts in standard option are shipped with 25,00 units per 13" or 33.0 cm diameter reel. The reels are clear in color and is made of polystyrene plastic (anti-static coated).

Dimensions are in millimeter										
Pkg type	A	B	C	d	E	F	P0	P	P1	W
TO-252	6.90	10.50	2.70	Ø1.55	1.75	7.50	4.00	8.00	2.00	16.00
(Tolerance)	+/-0.1	+/-0.1	+/-0.1	+/-0.1	+/-0.1	+/-0.1	+/-0.1	+/-0.1	+/-0.1	+0.3/-0.1

TO-252 Tape Leader and Trailer



TO-252 Reel



Dimensions are in millimeter						
Reel Option	D	D1	D2	W1	W2	I
13"Dia	330.00	100.00	Ø21.00	16.40	21.00	Ø13.00
Tolerance	+/-2	+/-1	+/-1	+/-1	+/-1	+/-1

REEL	Reel Size	Box	Box Size(mm)	Carton	Carton Size(mm)	G.W.(kg)
2,500 pcs	13inch	2,500 pcs	340×336×29	25,000 pcs	353×346×365	14.04