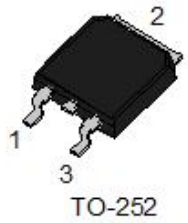
BT137

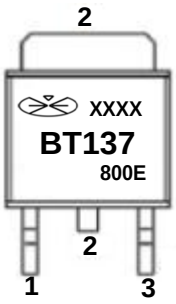
8A Triac

MAIN FEATURES

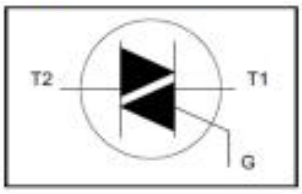
Symbol	value		unit
$I_{T(RMS)}$	4		A
V_{DRM}/V_{RRM}	600	800	V
I_{TSM}	25		A

Package





PIN1:T1
PIN2:T2
PIN3:G



Package Marking and Ordering Information

Product ID	PACK	Qty（pcs）
BT137	TO-252	2500

ABSOLUTE MAXIMUM RATINGS(Ta=25℃ unless otherwise noted)

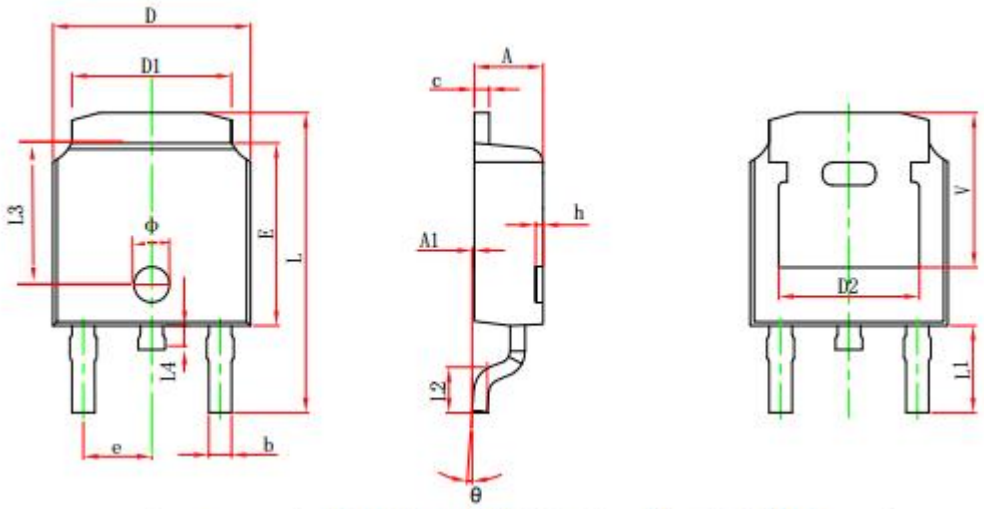
Symbol	Parameter		Value		Unit
			600E	800E	
V_{DRM}/V_{RRM}	Repetitive peak off-state voltage		600	800	V
$I_{T(RMS)}$	RMS on-state current(full sine wave)		8		A
I_{TSM}	Non repetitive surge peak on-state current(full sine wave,Tj=25℃)	t=20ms	40		A
		t=16.7ms	42		
I_{GM}	Peak gate current		1		A
I^2t	I^2t for fusing	t=10ms	8		A^2S
$P_{G(AV)}$	Average gate Power Dissipation	Tj=125℃	0.1		W
P_{GM}	Peak gate Power		5.0		W
Dit/dt	Repetitive rate of rise of on-state current after triggering		40		A/μs
Tj	Junction Temperature		-40 to 125		℃
Tstg	Storage Temperature		-40 to 150		℃
RθJA	Thermal Resistance From Junction To Ambient		70		℃/W

ELECTEICAL CHARACTERISTICS(Ta=25℃ unless otherwise specified)

Parameter	Symbol	Test conditions		Min	Typ	Max	Unit
Ⅲ Quadrant							
Gate trigger current	IGT	VD=12V;RL=100Ω	Ⅰ Ⅱ Ⅲ			35	mA
Gate trigger voltage	VGT	VD=12V;RL=100Ω	Ⅰ Ⅱ Ⅲ			1.5	V
Non-triggering gate voltage	VGD	Tj=125℃	Ⅰ Ⅱ Ⅲ	0.2			V
Holding current	IH	IT=0.5A				35	mA
Thyristor holds up current	IL	IG=1.2IGT				5 35	mA
Critical rise rate of off-state voltage	dV/dt	VD=67%VDRM(max);Tj=125℃		500			V/μs

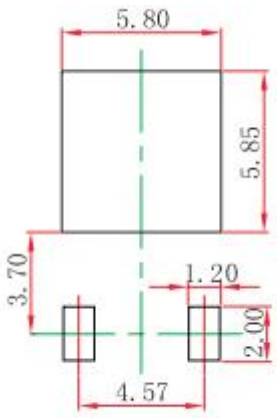
Parameter	Symbol	Test conditions		Min	Typ	Max	Unit
Ⅳ Quadrant							
Gate trigger current	IGT	VD=12V;RL=100Ω	Ⅰ Ⅱ Ⅲ			35	mA
			Ⅳ			80	
Gate trigger voltage	VGT	VD=12V;RL=100Ω	Ⅰ Ⅱ Ⅲ			1.5	V
			Ⅳ				
Non-triggering gate voltage	VGD	Tj=125℃	Ⅰ Ⅱ Ⅲ	0.2			V
			Ⅳ				
Holding current	IH	IT=0.5A				60	mA
Thyristor holds up current	IL	IG=1.2IGT				20 100	mA
Critical rise rate of off-state voltage	dV/dt	VD=67%VDRM(max);Tj=125℃		500			V/μs

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:± 0.05mm.
3.The pad layout is for reference purposes only.