



General Description

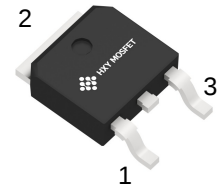
Glass passivated triacs in a plastic envelope, intended for use in applications requiring high bidirectional transient and blocking voltage capability and high thermal cycling performance.

Typical applications include motor control, industrial and domestic lighting, heating and static switching.

1. ANODE

2. ANODE

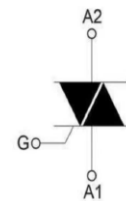
3. GATE



TO-252-2L

Package Marking and Ordering Information

Product ID	Pack	Packing Method	Qty(PCS)
BT137S-600D	TO-252-2L	Tape and Reel	2500



Maximum Ratings (Ta=25°C unless otherwise noted)

Symbol	Parameter	Conditions	Value	Unit
V_{DRM} / V_{RRM}	repetitive peak off-state voltage		600	V
$I_{T(RMS)}$	RMS on-state current		8	A
I_{TSM}	Non repetitive surge peak on-state current	$t = 20ms$ $T_j = 25^\circ C$	60	A
		$t = 16.7ms$ $T_j = 25^\circ C$	50	
$I^2 t$	$I^2 t$ for fusing	$t = 10 ms$	2	$A^2 s$
di/dt	Critical-rate of rise of commutation current	$I_G = 2I_{GT}$ $t_r \leq 100ns$ $F = 120Hz$	50 10	A/us
I_{GM}	Peak Gate Current	$T_j = 125^\circ C$ $t_p = 20\mu s$	0.6	A
V_{GM}	Peak gate voltage	$T_j = 125^\circ C$	1	V
P_{GM}	Peak gate power	$T_j = 125^\circ C$	1	W
$P_{G(AV)}$	Average Gate Power Dissipation	$T_j = 125^\circ C$	0.5	W
T_j	Junction Temperature	-	-40 ~ 125	$^\circ C$
T_{stg}	Storage Temperature	-	-40 ~ 150	$^\circ C$

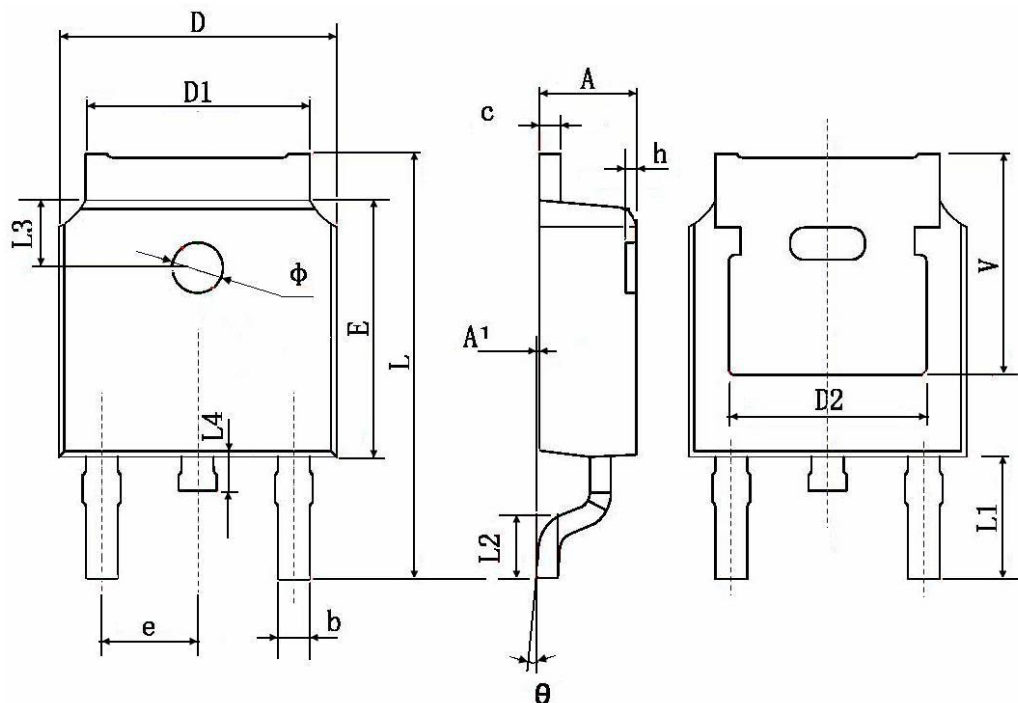


Electrical Characteristics (Ta=25°C unless otherwise specified)

Parameter		Symbol	Test conditions		Min	Typ	Max	Unit
Repetitive Peak Off-State Current Repetitive Peak Reverse Current		I _{DRM} , I _{RRM}	V _{DRM} =V _{RRM} T _J =25 °C				5	μA
			V _{DRM} =V _{RRM} T _J =125 °C				1	mA
Gate non-trigger voltage		V _{GD}	V _D = 1/2V _{DRM}		0.2			V
On-state voltage		V _{TM}	I _T = 6A, t _p =380us				1.65	V
Gate trigger current	I	I _{GT}	T ₂ (+), G(+)	V _D =12V R _L =100Ω			5	mA
	II		T ₂ (+), G(-)				10	
	III		T ₂ (-), G(-)				5	
	IV		T ₂ (-), G(+)				20	
Gate trigger voltage	I	V _{GT}	T ₂ (+), G(+)	V _D =12V R _L =100Ω		0.8	2	V
	II		T ₂ (+), G(-)			0.8	2	
	III		T ₂ (-), G(-)			0.8	2	
	IV		T ₂ (-), G(+)			0.8	2.5	
Holding current		I _H	V _D =12V , I _{GT} =100mA				30	mA
Critical-rate of rise of commutation voltage		dV/dt	V _{DM} =67%V _{DRM} Gate open T _J =125 °C				50	V/us
Rate of change of commutating voltage		(dI/dt) _c	V _{DM} =400V T _J =125 °C (dI/dt) _c =5.4A/ms Gate open				20	V/us
Turn-on time		t _{gt}	I _{TM} =16A , V _{DM} =V _{DRM(MAX)} I _G =0.1A, dI _G dt=5A uS				2	us



TO-252-2L Package Information



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	0.660	0.860	0.026	0.034
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	0.483 TYP.		0.190 TYP.	
E	6.000	6.200	0.236	0.244
e	2.186	2.386	0.086	0.094
L	9.800	10.400	0.386	0.409
L1	2.900 TYP.		0.114 TYP.	
L2	1.400	1.700	0.055	0.067
L3	1.600 TYP.		0.063 TYP.	
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	5.350 TYP.		0.211 TYP.	



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