



General Description

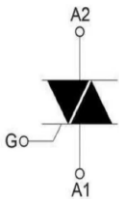
Glass passivated triacs in a plastic envelope, intended for use in applications requiring high bidirectional transient and blocking voltage capability and high thermal cycling performance.

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



Package Marking and Ordering Information

Product ID	Pack	Packing Method	Qty(PCS)
BT137-800D	TO-252-2L	Tape and Reel	2500



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

Symbol	Parameter	Conditions	Value	Unit
V_{DRM} I_{VRRM}	repetitive peak off-state voltage		800	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^2t	I^2t for fusing	$t = 10\ ms$	2	A^2s
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	$^{\circ}C$

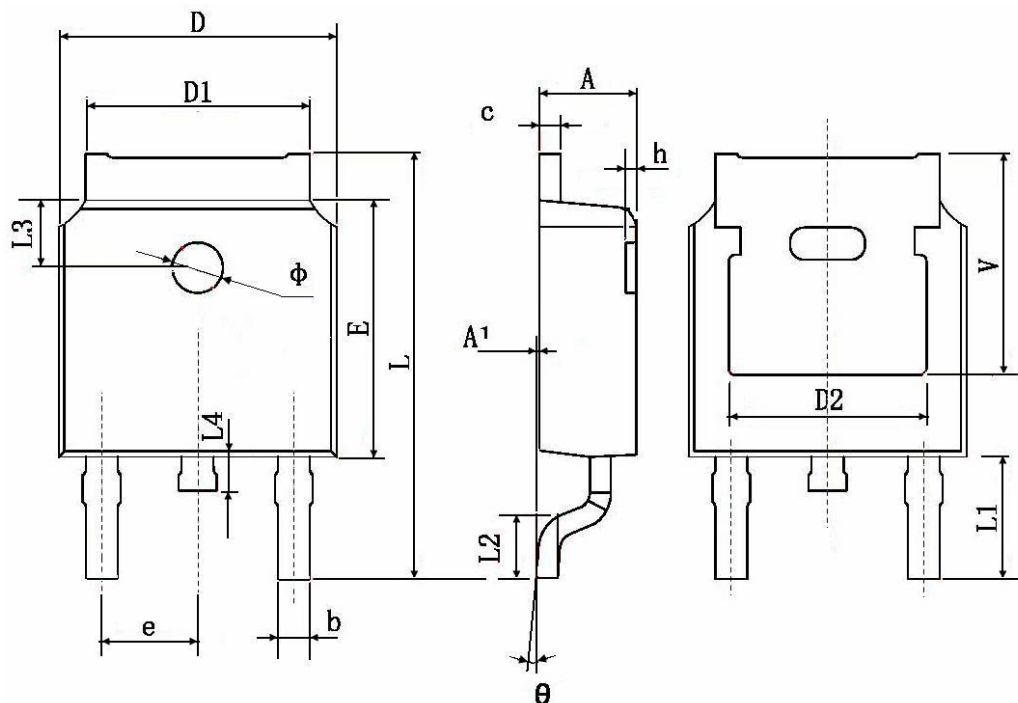


Electrical Characteristics (Ta=25°C unless otherwise specified)

Parameter		Symbol	Test conditions		Min	Typ	Max	Unit
Repetitive Peak Off-State Current Repetitive Peak Reverse Current		$I_{\text{DRM}}, I_{\text{RRM}}$	$V_{\text{DRM}} = V_{\text{RRM}} \quad T_{\text{J}} = 25\text{ }^{\circ}\text{C}$				5	μA
			$V_{\text{DRM}} = V_{\text{RRM}} \quad T_{\text{J}} = 125\text{ }^{\circ}\text{C}$				1	mA
Gate non-trigger voltage		V_{GD}	$V_{\text{D}} = 1/2 V_{\text{DRM}}$		0.2			V
On-state voltage		V_{TM}	$I_{\text{T}} = 6\text{A}, t_{\text{p}} = 380\mu\text{s}$				1.65	V
Gate trigger current	I	I_{GT}	$T_2(+), G(+)$	$V_{\text{D}} = 12\text{V}$ $R_{\text{L}} = 100\Omega$			5	mA
	II		$T_2(+), G(-)$				10	
	III		$T_2(-), G(-)$				5	
	IV		$T_2(-), G(+)$				20	
Gate trigger voltage	I	V_{GT}	$T_2(+), G(+)$	$V_{\text{D}} = 12\text{V}$ $R_{\text{L}} = 100\Omega$		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}	$V_{\text{D}} = 12\text{V}, I_{\text{GT}} = 100\text{mA}$				30	mA
Critical-rate of rise of commutation voltage		dV/dt	$V_{\text{DM}} = 67\% V_{\text{DRM}}$ Gate open $T_{\text{J}} = 125\text{ }^{\circ}\text{C}$				50	V/us
Rate of change of commutating voltage		(dI/dt) _c	$V_{\text{DM}} = 400\text{V} \quad T_{\text{J}} = 125\text{ }^{\circ}\text{C}$ (dI/dt) _c = 5.4A/ms Gate open				20	V/us
Turn-on time		t_{gt}	$I_{\text{TM}} = 16\text{A}, V_{\text{DM}} = V_{\text{DRM(MAX)}}$ $I_{\text{G}} = 0.1\text{A}, dI_{\text{G}}/dt = 5\text{A } \mu\text{S}$				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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