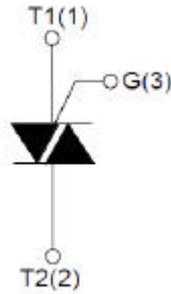
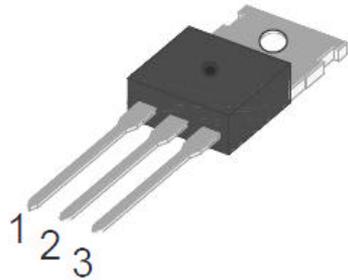


8A TRIAC



BT137- 600D

TO-220
Plastic Package

For use in General Purpose Bidirectional Switching and Phase Control Applications

ABSOLUTE MAXIMUM RATINGS

PARAMETER	SYMBOL	VALUE	UNIT
Repetitive Peak Off-State Voltage (T _j =25°C)	V _{DRM}	600	V
Repetitive Peak Reverse Voltage (T _j =25°C)	V _{RRM}	600	V
Non Repetitive Surge Peak Off-State Voltage	V _{DSM}	700	V
Non Repetitive Peak Reverse Voltage	V _{RSM}	700	V
RMS On-State Current	I _{T(RMS)}	8	A
Non Repetitive Surge Peak On-State Current (Full Cycle, f = 50MHz)	I _{TSM}	65	A
I ² t Value For Fusing (tp=10ms)	I ² t	21	A ² s
Critical Rate of Rise of On-State Current (I _G = 2 X I _{GT})	di/dt	50	A/μs
Peak Gate Current	I _{GM}	2	A
Average Gate Power Dissipation	P _{G(AV)}	0.5	W
Peak Gate Power	P _{GM}	5	W
Maximum Thermal Resistance Junction to case	R _{th(j-c)}	3	°C/W

ELECTRICAL CHARACTERISTICS (T_j = 25°C unless otherwise specified)

PARAMETER	TEST CONDITION	SYMBOL	QUADRANT	VALUE	UNIT
Gate Trigger Current	V _D =12V, R _L =30Ω	I _{GT}	I - II - III	<5	mA
			IV	<10	
Gate Trigger Voltage	V _D =12V, R _L =30Ω	V _{GT}	ALL	<1.5	V
Off-State Gate voltage	V _D =V _{DRM} , T _j =125°C, R _L = 3.3KΩ	V _{GD}	ALL	>0.2	V
Latching Current	I _G =1.2 X I _{GT}	I _L	I - III	<15	mA
			II - IV	<20	
Holding Current	I _T = 100mA	I _H		<10	mA
Critical Rate of Rise of Off-State Voltage	V _D = 2/3 V _{DRM} , Gate Open, T _j =125°C	dV/dt		>5	V/μs

STATIC CHARACTERISTICS

PARAMETER	TEST CONDITION	SYMBOL	VALUE	UNIT
On-State Voltage	$I_{TM}=10A, t_p=380\mu s$	V_{TM}	<1.65	V
Off-State Leakage Current	$V_D=V_{DRM}, T_j=25^\circ C$	I_{DRM}	<5	μA
	$V_R=V_{RRM}, T_j=25^\circ C$	I_{RRM}	<5	
Off-State Leakage Current	$V_D=V_{DRM}, T_j=125^\circ C$	I_{DRM}	<1	mA
	$V_R=V_{RRM}, T_j=125^\circ C$	I_{RRM}	<1	

CHARACTERISTICS CURVES

FIG.1 Maximum power dissipation versus RMS on-state current

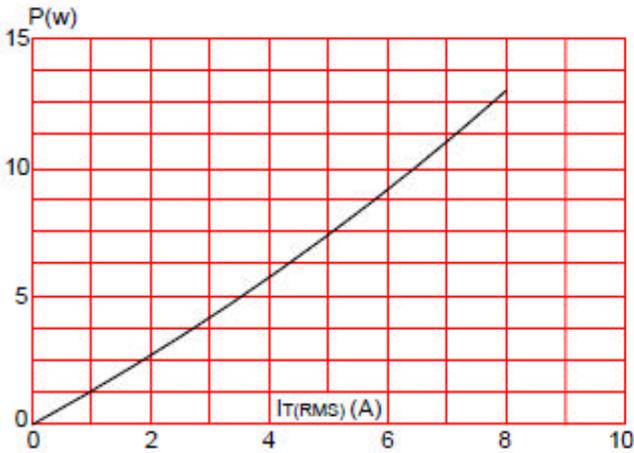


FIG.2: RMS on-state current versus case temperature

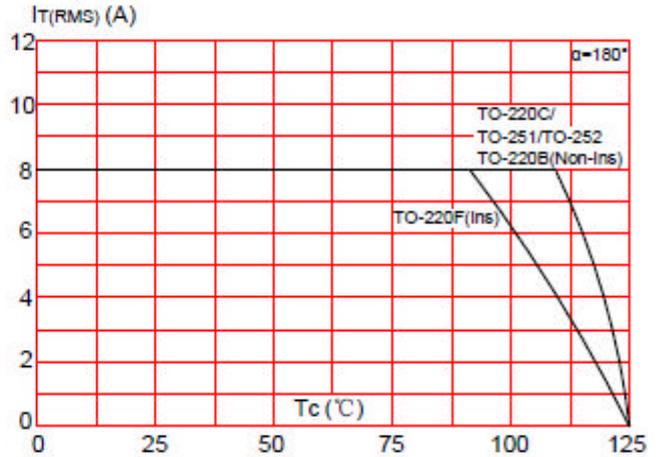


FIG.3: Surge peak on-state current versus number of cycles

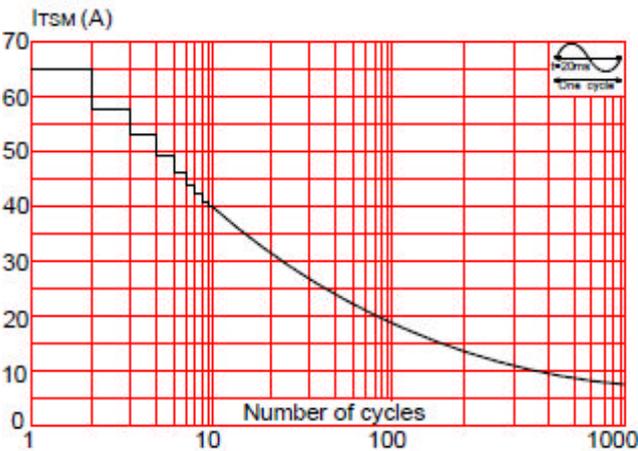


FIG.4: On-state characteristics (maximum values)

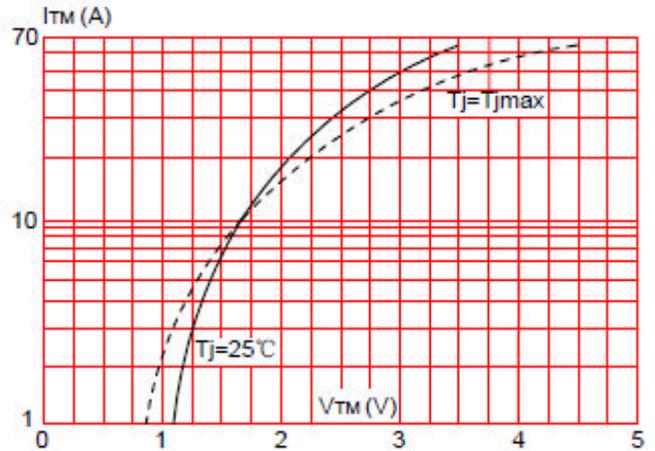


FIG.5: Non-repetitive surge peak on-state current for a sinusoidal pulse with width $t_p < 20\text{ms}$, and corresponding value of I^2t ($di/dt < 50\text{A}/\mu\text{s}$)

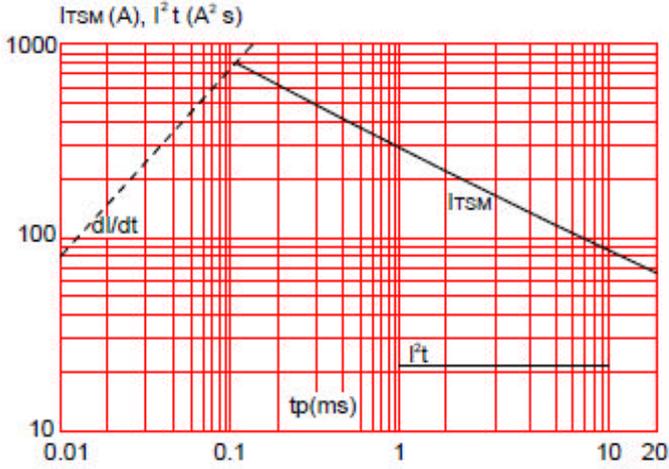


FIG.7: Relative variations of holding current versus junction temperature

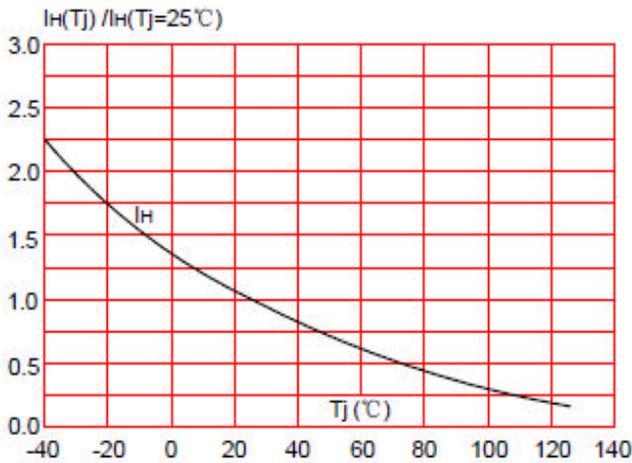


FIG.6: Relative variations of gate trigger current versus junction temperature

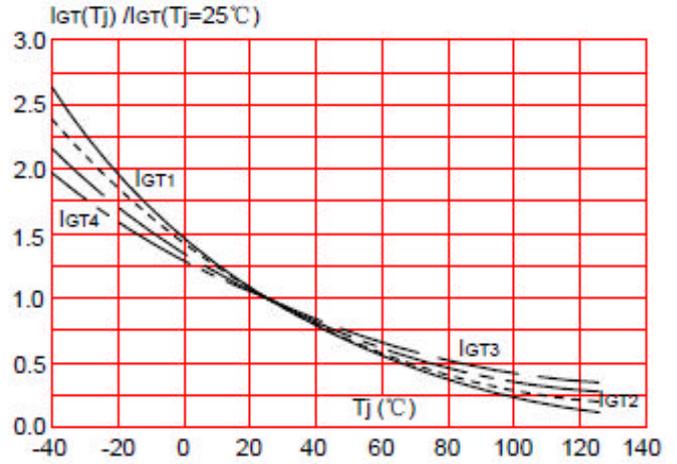
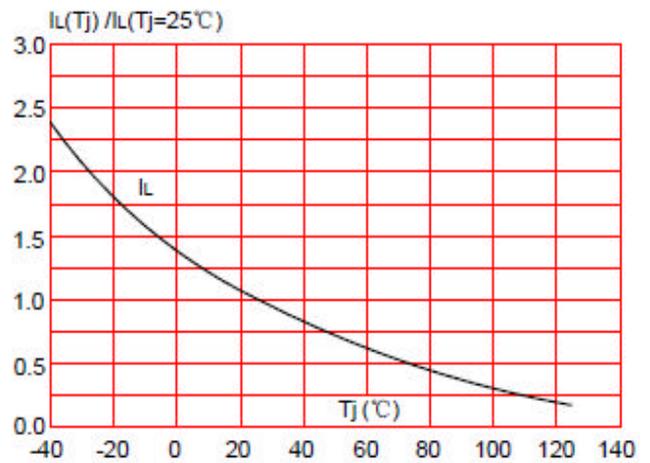
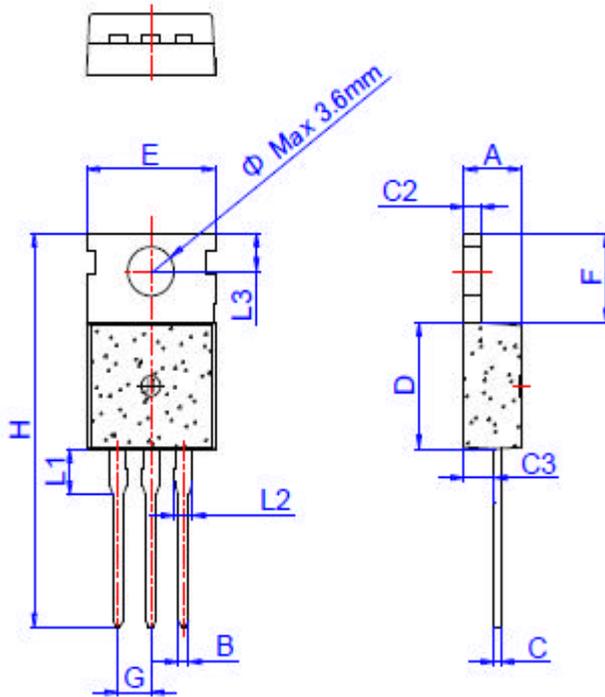


FIG.8: Relative variations of latching current versus junction temperature



PACKAGE OUTLINE AND DIMENSION



Ref.	Dimensions					
	Millimeters			Inches		
	Min.	Typ.	Max.	Min.	Typ.	Max.
A	4.40		4.60	0.173		0.181
B	0.70		0.90	0.028		0.035
C			0.60	0.018		0.024
C2	1.23		1.32	0.048		0.052
C3	2.20		2.60	0.087		0.102
D	8.90		9.90	0.350		0.390
E	9.90		10.3	0.390		0.406
F	6.30		6.90	0.248		0.272
G		2.54			0.1	
H	28.0		29.8	1.102		1.173
L1		3.39			0.133	
L2	1.14		1.70	0.045		0.067
L3	2.65		2.95	0.104		0.116
Φ		3.6			0.142	



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2. In Europe, please dispose as per EU Directive 2002/96/EC on Waste Electrical and Electronic Equipment (WEEE).

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