

Product Summary

Symbol	Value	Unit
$I_{T(RMS)}$	8.0	A
$V_{DRM} V_{RRM}$	600 / 800	V
V_{TM}	1.55	V

Feature

With high ability to withstand the shock loading of large current, With high commutation performances, 4 quadrants products especially recommended for use on inductive load.

Application

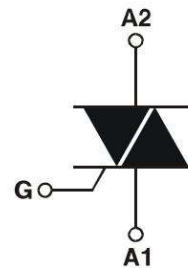
Washing machine, vacuums, massager, solid state relay, AC Motor speed regulation and so on.

Package

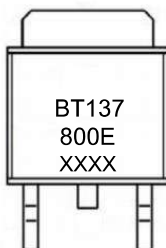


TO-252AB

Circuit diagram



Marking



Absolute maximum ratings (Ta=25°C unless otherwise noted)

Parameter	Symbol	Value	Unit	
Repetitive peak off-state voltage	V _{DRM}	600 / 800	V	
Repetitive peak reverse voltage	V _{RPM}	600 / 800	V	
RMS on-state current	I _{T(RMS)}	8	A	
Non repetitive surge peak on-state current (full cycle, F=50Hz)	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 × I _{GT})	di _T /dt	I - II - III	50	A/μs
		IV	10	
Peak gate current	I _{GM}	2	A	
Average gate power dissipation	P _{G(AV)}	0.5	W	
Junction Temperature	T _J	-40 ~ +125	°C	
Storage Temperature	T _{STG}	-40 ~ +150	°C	

Electrical characteristics (T_A=25 °C, unless otherwise noted)

Parameter	Symbol	Test Condition	Value	Unit		
Gate trigger current	I _{GT}	V _D = 12V I _T = 0.1A T _J = 25°C	I - II - III	10	mA	
			IV	25		
Gate trigger voltage	V _{GT}	I - II - III - IV	MAX.	1.5	V	
Gate non-trigger voltage	V _{GD}	V _D = V _{DRM} T _J = 125°C	MIN.	0.2	V	
latching current	I _L	V _D = 12V I _{GT} = 0.1A T _J = 25°C	I - III - IV	25	mA	
			II	35		
Holding current	I _H	I - II - III - IV	MAX.	20	mA	
Critical-rate of rise of commutation voltage	dV _D /dt	V _D = 2/3V _{DRM} Gate Open T _J = 125°C	MIN.	20	V/μs	
STATIC CHARACTERISTICS						
Forward "on" voltage	V _{TM}	I _{TM} = 10A tp=380μs	MAX.	1.55	V	
Repetitive Peak Off-State Current	I _{IDRM}	V _D = V _{DRM} V _R = V _{RPM}	T _J = 25°C	MAX.	5	μA
Repetitive Peak Reverse Current	I _{IRRM}		T _J = 125°C	MAX.	1	mA
THERMAL RESISTANCES						
Thermal resistance	R _{th(j-c)}	Junction to case(AC)	TYP.	1.6	°C/W	
	R _{th(j-a)}	Junction to ambient	TYP.	70	°C/W	

Typical Characteristics

FIG.1: Maximum power dissipation versus RMS on-state current (full cycle)

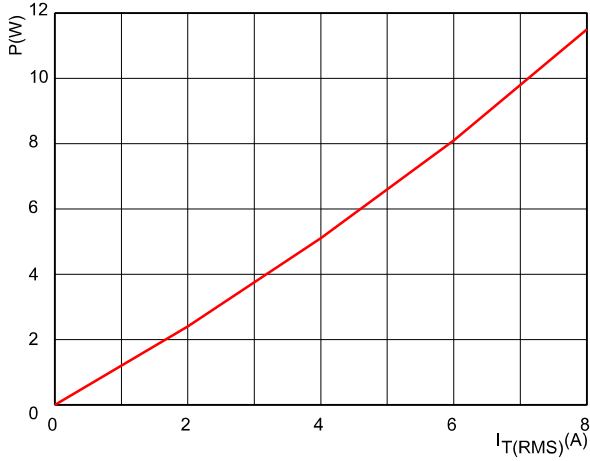


FIG.2: RMS on-state current versus case temperature (full cycle)

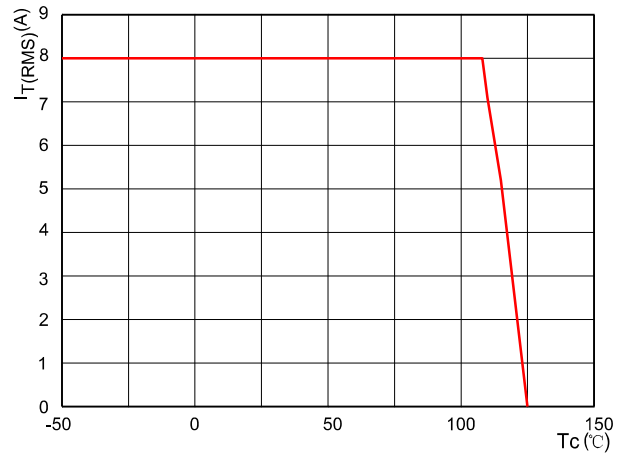


FIG.3: Surge peak on-state current versus number of cycles

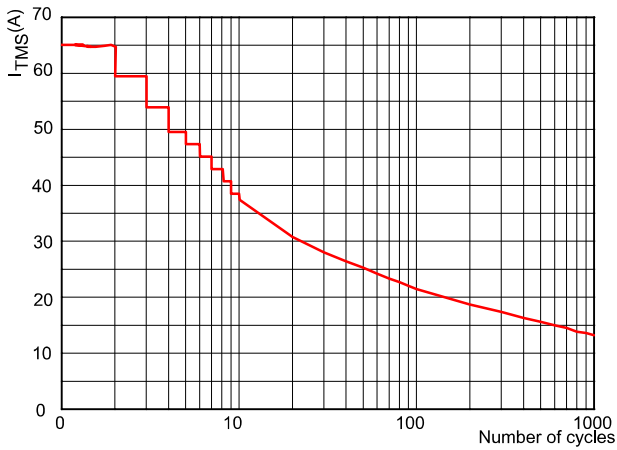


FIG.4: On-state characteristics (maximum values)

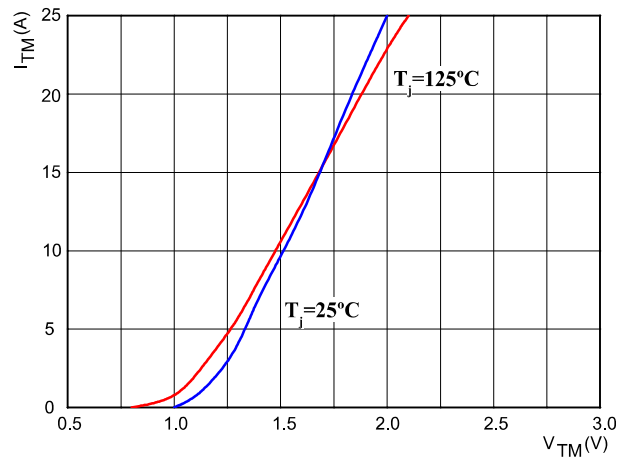


FIG.5: Non-repetitive surge peak on-state current for a sinusoidal pulse with width $t_p < 10\text{ms}$

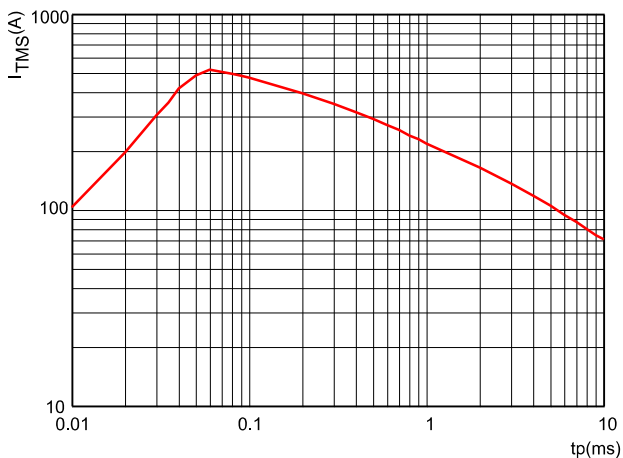
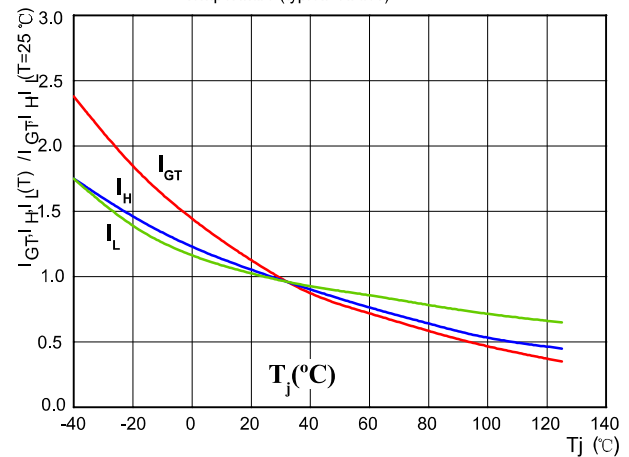
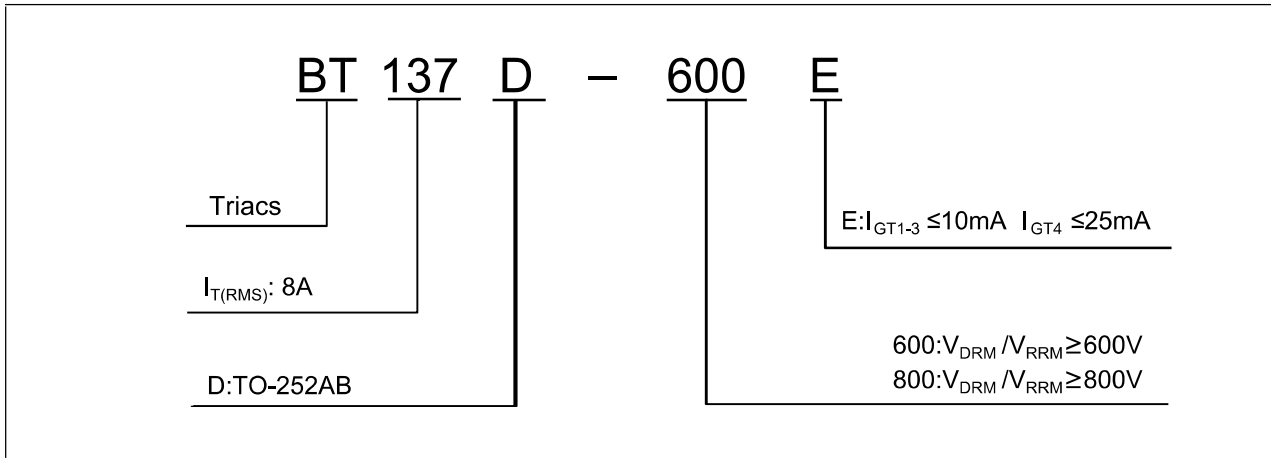


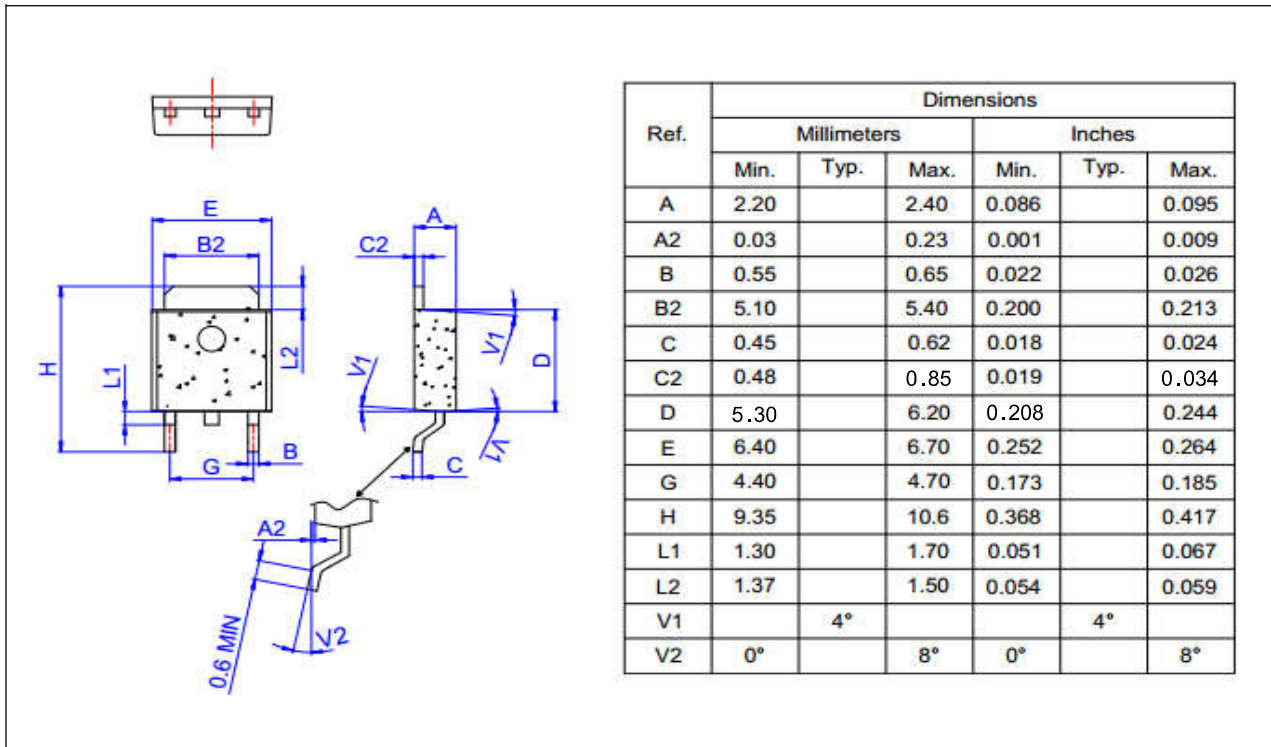
FIG.6: Relative variations of gate trigger current, holding current and latching current versus junction temperature (typical values)



Ordering Information



TO-252AB Package Information



X-ON Electronics

Largest Supplier of Electrical and Electronic Components

Click to view similar products for [Triacs](#) category:

Click to view products by [FUXINSEMI](#) manufacturer:

Other Similar products are found below :

[BT137-600-0Q](#) [OT415Q](#) [2N6075A](#) [NTE5688](#) [BTA2008W-800D,135](#) [D31410](#) [BT136-600,127](#) [BT137B-800,118](#) [BTA140-600,127](#)
[BTA208-800B,127](#) [MAC97A6,116](#) [BTA420-800BT,127](#) [BTA201W-800E,115](#) [BTA212B-800B,118](#) [BTA41-800BRG](#) [TMA164P-L](#)
[TMA166P-L](#) [TMA54S-L](#) [BT137-600E,127](#) [BTA140-800,127](#) [BTA30-600CW3G](#) [BTB16-600CW3G](#) [TMA84S-L](#) [Z0109MN,135](#) [T825T-6I](#)
[T1635T-6I](#) [T1220T-6I](#) [NTE5638](#) [ACST1235-8FP](#) [BT134-600D,127](#) [BT134-600G,127](#) [BT136X-600E,127](#) [BT139X-800,127](#) [BTA204X-](#)
[800C,127](#) [BTA208X-1000C0,127](#) [BTA216-600E,127](#) [BTA316X-600E/DG,12](#) [BTA316X-800C,127](#) [BT134-600D,127](#) [BT134-600E,127](#)
[BT137X-600D,127](#) [BT139X-600E,127](#) [BTA08-600BW3G](#) [BTA201-800ER,126](#) [BTA208X-1000B,127](#) [BTA316X-800E,127](#) [NTE56008](#)
[NTE56017](#) [NTE56018](#) [NTE56059](#)