

## 4.0A 4Quadrants TRIACs

**Product Summary**

Symbol	Value	Unit
$I_T(\text{RMS})$	4.0	A
$V_{\text{DRM}} V_{\text{RRM}}$	600/800	V
$V_{\text{TM}}$	1.55	V

**Features**

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**

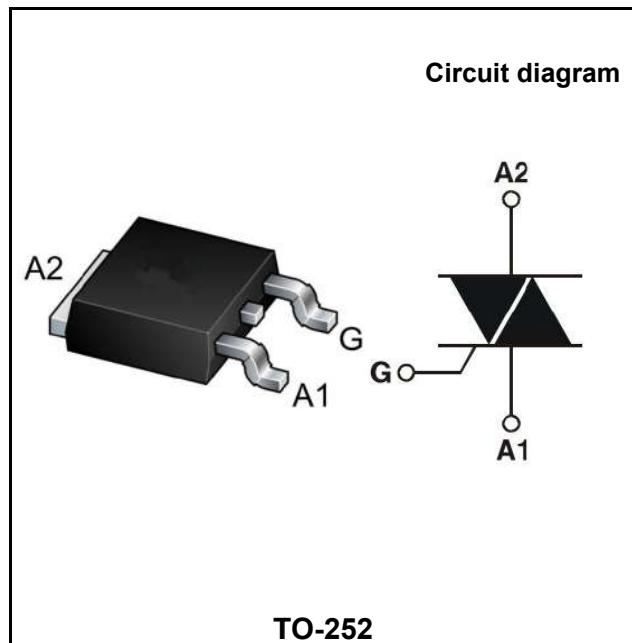
Washing machine, vacuums, massager, solid state relay, AC Motor speed regulation and so on.

**Order Information**

Part Number	Package	Marking	Delivery Form	Delivery Quantity
BT136D	TO-252	BT136 600E XXXX	12" T&R	3000PCS/Tape

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

Parameter	Symbol	Value		Unit
Repetitive peak off-state voltage	$V_{\text{DRM}}$	600/800		V
Repetitive peak reverse voltage	$V_{\text{RRM}}$	600/800		V
RMS on-state current	$I_T(\text{RMS})$	4		A
Non repetitive surge peak on-state current (full cycle, F=50Hz)	$I_{\text{TSM}}$	25		A
$I^2t$ value for fusing ( $t_p=10ms$ )	$I^2t$	3.1		$A^2s$
Critical rate of rise of on-state current ( $ I_G  = 2 \times  I_{GT} $ )	$dI/dt$	I - II - III	50	A
		IV	10	$A/\mu s$
Peak gate current	$I_{\text{GM}}$	2		A
Average gate power dissipation	$P_G (\text{AV})$	0.5		W
Junction Temperature	$T_J$	-40~+125		°C
Storage Temperature	$T_{\text{STG}}$	-40 ~+150		°C



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

Parameter	Symbol	Test Condition	Value		Unit
			Min	Max	
Gate trigger current	I <sub>GT</sub>	V <sub>D</sub> =12V I <sub>T</sub> =0.1A T <sub>j</sub> =25°C	I - II - III IV	- 10 - 25	mA
Gate trigger voltage	V <sub>GT</sub>		I - II - III - IV	- 1.3	
Gate non-trigger voltage	V <sub>GD</sub>	V <sub>D</sub> =V <sub>DRM</sub> T <sub>j</sub> =125°C	0.2	-	V
Latching current	I <sub>L</sub>	V <sub>D</sub> =12V I <sub>GT</sub> =0.1A	I - III - IV II	- 15 - 20	mA
Holding current	I <sub>H</sub>	T <sub>j</sub> =25°C	I - II - III - IV	- 15	
Critical-rate of rise of commutation voltage	dV <sub>D</sub> /dt	V <sub>D</sub> =2/3V <sub>DRM</sub> Gate Open T <sub>j</sub> =125°C	20	-	V/us

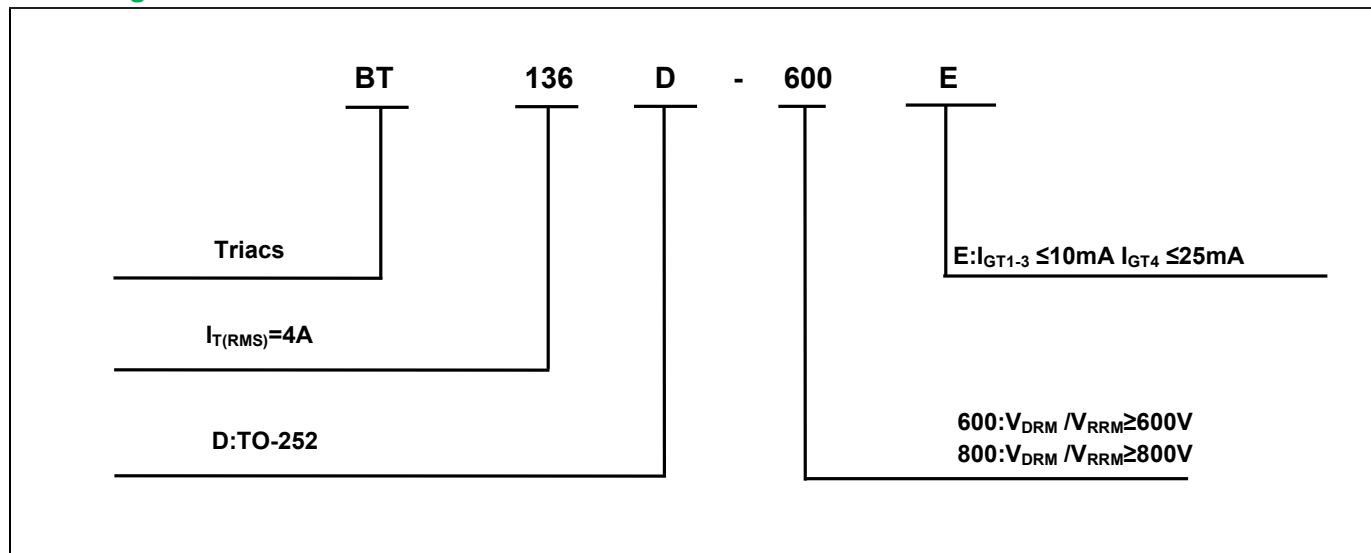
## STATIC CHARACTERISTICS

Forward "on" voltage	V <sub>TM</sub>	ITM =6A tp=380μs	-	1.55	V
Repetitive Peak Off-State Current	I <sub>DRM</sub>		T <sub>j</sub> =25°C	- 5	UA
Repetitive Peak Reverse Current	I <sub>RRM</sub>	V <sub>D</sub> =V <sub>DRM</sub> V <sub>R</sub> =V <sub>RRM</sub>	T <sub>j</sub> =125°C	- 500	UA

## THERMAL RESISTANCES

Thermal resistance	R <sub>th(j-c)</sub>	Junction to case(AC)	TYP.	3	°C/W
	R <sub>th(j-a)</sub>	Junction to ambient	TYP.	70	°C/W

## Ordering Information



**Typical Characteristics**

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

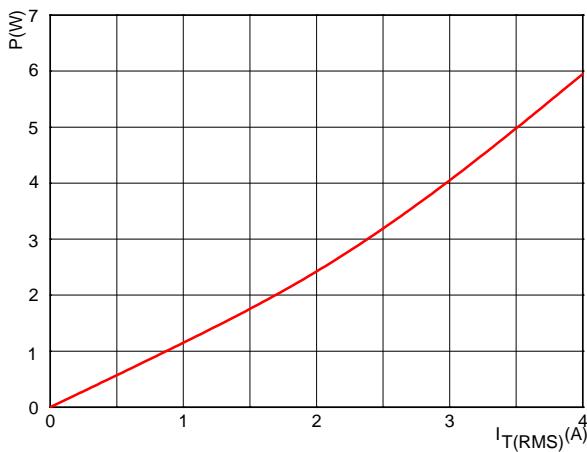


FIG.2: RMS on-state current versus case temperature (full cycle)

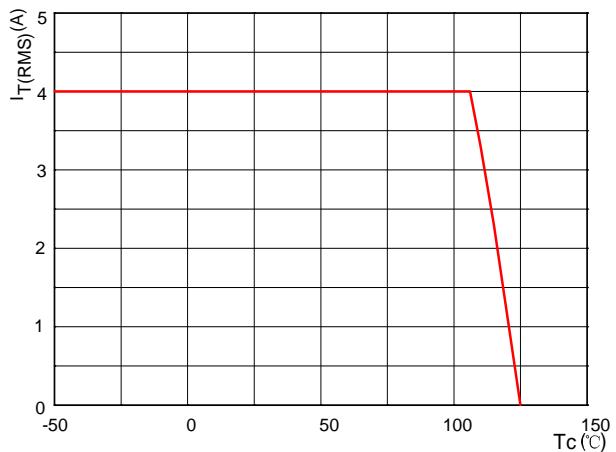


FIG.3: Surge peak on-state current versus number of cycles

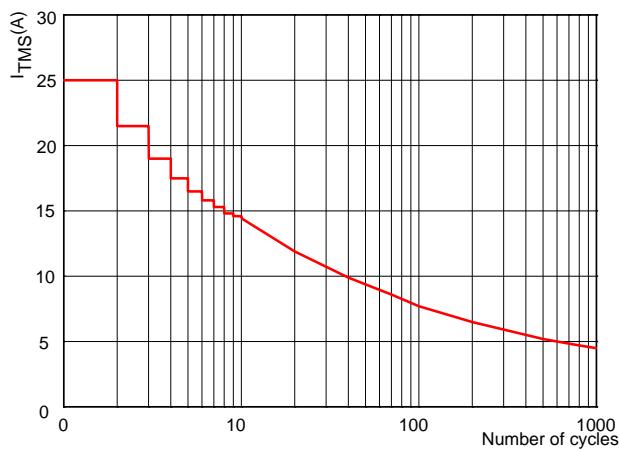


FIG.4: On-state characteristics (maximum values)

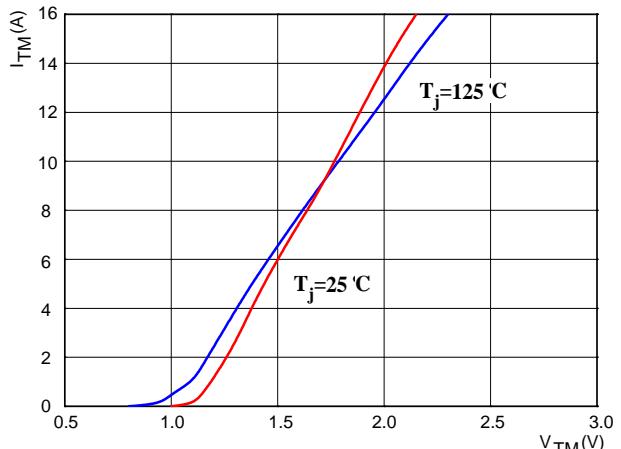


FIG.5: Non-repetitive surge peak on-state current for a sinusoidal pulse with width tp < 10ms

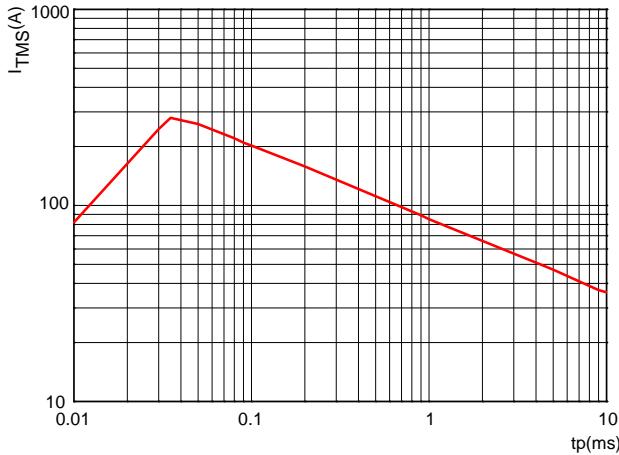
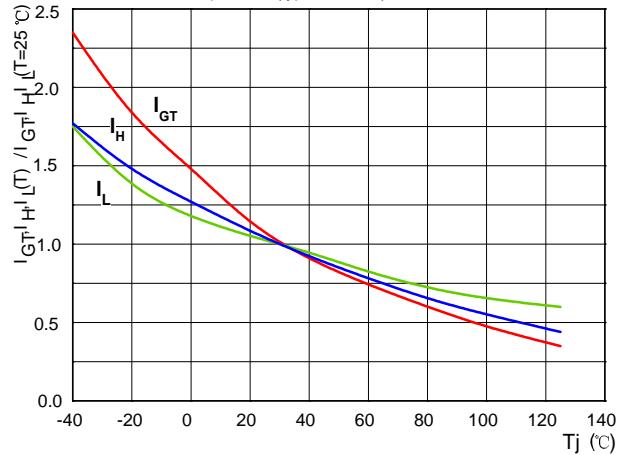
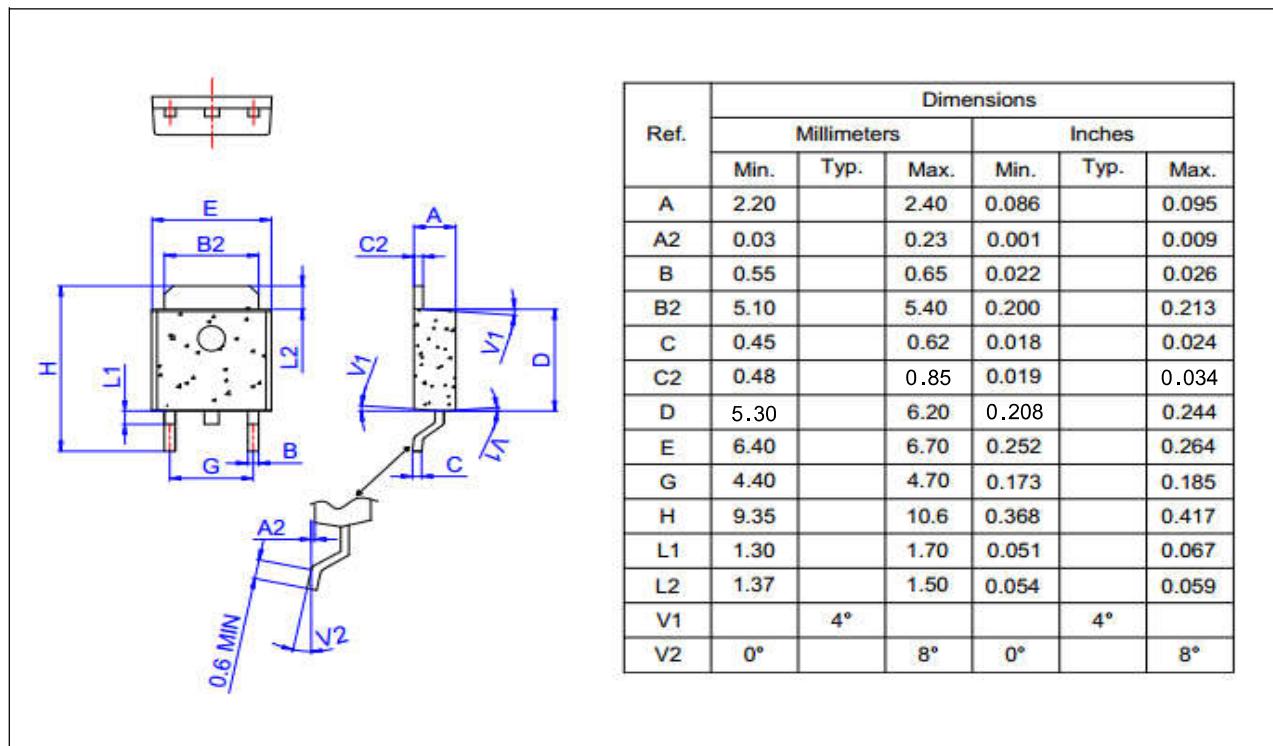


FIG.6: Relative variations of gate trigger current, holding current and latching current versus junction temperature (typical values)



**Package Information**

**TO-252**



The technical drawing illustrates the physical dimensions of the TO-252 package. It includes a top view showing lead positions, a side view showing height and lead spacing, and a cross-sectional view showing lead thickness and lead angle. Key dimensions are:

Ref.	Dimensions					
	Millimeters			Inches		
	Min.	Typ.	Max.	Min.	Typ.	Max.
A	2.20		2.40	0.086		0.095
A2	0.03		0.23	0.001		0.009
B	0.55		0.65	0.022		0.026
B2	5.10		5.40	0.200		0.213
C	0.45		0.62	0.018		0.024
C2	0.48		0.85	0.019		0.034
D	5.30		6.20	0.208		0.244
E	6.40		6.70	0.252		0.264
G	4.40		4.70	0.173		0.185
H	9.35		10.6	0.368		0.417
L1	1.30		1.70	0.051		0.067
L2	1.37		1.50	0.054		0.059
V1		4°			4°	
V2	0°		8°	0°		8°

单击下面可查看定价，库存，交付和生命周期等信息

[>>YFW\(佑风微\)](#)