

5 é / Descriptions

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Triac in a TO-220F Plastic Package.

α a / Features

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Medium current triac, Low on state voltage drop,High reliability and stability,Low thermal resistance.

Đ ÷ / Applications

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Suitable for general purpose AC switching .Such as static relays,heating regulation,induction motor starting circuits,motor speed controllers,etc.

Ã W ] Ô . / Equivalent Circuit

• Ů - æ / Pinning

PIN1 y Main Terminal 1 PIN 2 y Main Terminal 2 PIN 3 ÖGate

, M V / Marking

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See Marking Instructions.

### Absolute Maximum Ratings( $T_a=25$ ; )

Parameter	Symbol	Rating	Unit
Repetitive peak off-state/reverse voltages( $T_j=25$ - )	$V_{DRM}/V_{RRM}$	800	V
RMS on-state current( $T_c=0.73$ - )	$I_{T(RMS)}$	16	A
Non repetitive surge peak on-state current(full cycle, $T_j=25^\circ\text{C}$ )	$I_{TSM}(t=20\text{ms})$	160	A
$I^2t$ value for fusing( $T_j=25$ - )	$I^2t_{(tp=10\text{ms})}$	128	$\text{A}^2\text{s}$
Critical rate of rise of on-state current ( $I_G=2I_{GT}$ , $f=120\text{Hz}$ $T_j=125$ - )	$di/dt$ I-II-III	50	A/ s
Peak gate current( $t_p=20$ s $T_j=125$ - )	$I_{GM}$	4	A
Average gate power dissipation( $T_j=125$ - )	$P_{G(AV)}$	0.5	W
Operating junction temperature range	$T_j$	-40 125	
Storage junction temperature range	$T_{stg}$	-40 150	
Junction to ambient(AC)	$R_{th(j-a)}$	60	/W
Junction to case for(AC)	$R_{th(j-c)}$	2.3	

### Electrical Characteristics( $T_j=25$ ; )

± 3 quadrants / Snubberless and logic level

Symbol	Test Conditions	Quadrant	Value	Unit
$I_{GT}$	$V_D=12\text{V}$ $R_L=33$	I-II-III	Max. 35	mA
$V_{GT}$	$V_D=12\text{V}$ $R_L=33$	I-II-III	Max. 1.3	V
$V_{GD}$	$V_D=V_{DRM}$ $R_L=3.3\text{K}$ $T_j=125$	I-II-III	Min. 0.2	V
$I_L$	$I_G=1.2I_{GT}$	I-III	Max. 50	mA
		II	70	
$I_H$	$I_T=500\text{mA}$		Max. 50	mA
(dV/dt)	$V_D=67\%$ $V_{DRM}$ Gate Open	$T_j=125$	Min. 1000	V/ s
$V_{TM}$	$I_{TM}=23\text{A}$ $t_p=380$ s	$T_j=25$	Max. 1.55	V
$I_{DRM}$	$V_D=V_{DRM}$ $V_R=V_{RRM}$	$T_j=25$	Max. 10	A
$I_{RRM}$		$T_j=125$		1

Ô ? d • Ž ¢ / Electrical Characteristic Curve



, M y f / Marking Instructions

BR  
BT1608  
CW \*\*\*\*

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- Note:
- BR:                    Company Code
  - BT1608:            Product Type Code
  - CW:                    IGT Bracket code
  - \*\*\*\*:                    Lot No. Code, code change with Lot No

