5 é / Descriptions

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Triac in a TO-220F Plastic Package.

¤ ª / Features

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

Ð ÷ / 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

• Û - 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.

Ã a ? d / Absolute Maximum Ratings(Ta=25 ;)

@ *f* Parameter	… Z Symbol	*f* › Rating	% y 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°C)	$I_{TSM(t=20ms)}$	160	A
I^2t value for fusing(T_j=25 -)	$I^2t_{(tp=10ms)}$	128	A^2s
Critical rate of rise of on-state current (I_G =2I_{GT}, f=120Hz 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	

Ô4ì × ? d / Electrical Characteristics(Tj=25 ;)

± ¨ Î — x ý Í Ô t c 3 Š a d / Snubberless and logic level c 3 quadrants)

… Z Symbol	y ¡ Ú ^ Test Conditions	' Z Quadrant	*f* › Value		% y Unit
I_{GT}	V_D=12V R_L=33	I-II-III	Max.	35	mA
V_{GT}	V_D=12V R_L=33	I-II-III	Max.	1.3	V
V_{GD}	V_D=V_{DRM} R_L=3.3K 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=500mA		Max.	50	mA
(dV/dt)	V_D=67% V_{DRM} Gate Open	Tj=125	Min.	1000	V/ s
V_{TM}	I_{TM} =23A t_p=380 s	Tj=25	Max.	1.55	V
I_{DRM}	V_D=V_{DRM} V_R=V_{RRM}	Tj=25		10	A
I_{RRM}		Tj=125		1	mA

Ô ? d • Ž ¢ / Electrical Characteristic Curve

, M y ƒ / Marking Instructions

BR
BT1608
CW ****

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Note:

BR:	Company Code
BT1608:	Product Type Code
CW:	I_{GT} Bracket code
****:	Lot No. Code, code change with Lot No