/ Descriptions

TO-263

Triac in a TO-263 Plastic Package.

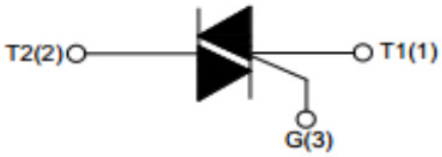
/ Features

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

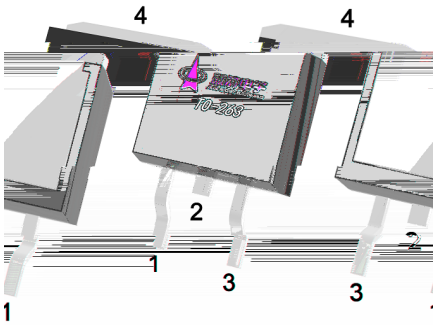
/ Applications

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

/ Equivalent Circuit



/ Pinning



PIN1 Main Terminal 1 PIN 2 4 Main Terminal 2 PIN 3 Gate

/ Marking

See Marking Instructions.

/ Absolute Maximum Ratings(Ta=25)

Parameter	Symbol	Rating	Unit
Repetitive peak off-state/reverse voltages(T_j=125)	V_{DRM}/V_{RRM}	800	V
RMS on-state current(T_C=90)	$I_{T(RMS)}$	12	A
Non repetitive surge peak on-state current(full cycle, T_j=25°C)	$I_{TSM(t=20ms)}$	120	A
I^2t value for fusing(T_j=25)	$I^2t_{(tp=10ms)}$	78	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}	4.0	A
Average gate power dissipation(T_j=125)	$P_{G(AV)}$	1	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)	$R_{th(j-c)}$	1.4	

/ Electrical Characteristics(Tj=25)

3 / Snubberless and logic level 3 quadrants)

Symbol	Test Conditions	Quadrant	Value		Unit
I_{GT}	V_D=12V R_L=30	I-II-III	Max.	35	mA
V_{GT}	V_D=12V R_L=30	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		60	
I_H	I_T=100mA		Max.	40	mA
(dV/dt)	V_D=67% V_{DRM} Gate Open	Tj=125	Min.	500	V/ s
V_{TM}	I_{TM} =17A t_p=380 s	Tj=25	Max.	1.55	V
I_{DRM}	V_D=V_{DRM} V_R=V_{RRM}	Tj=25		5	A
I_{RRM}		Tj=125		1	mA

/ Electrical Characteristic Curve

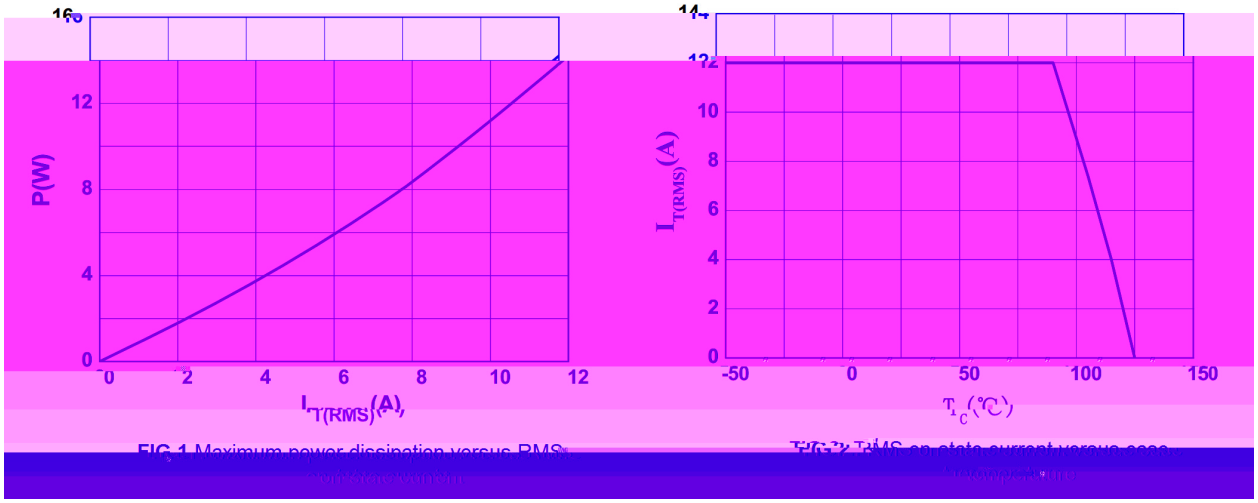
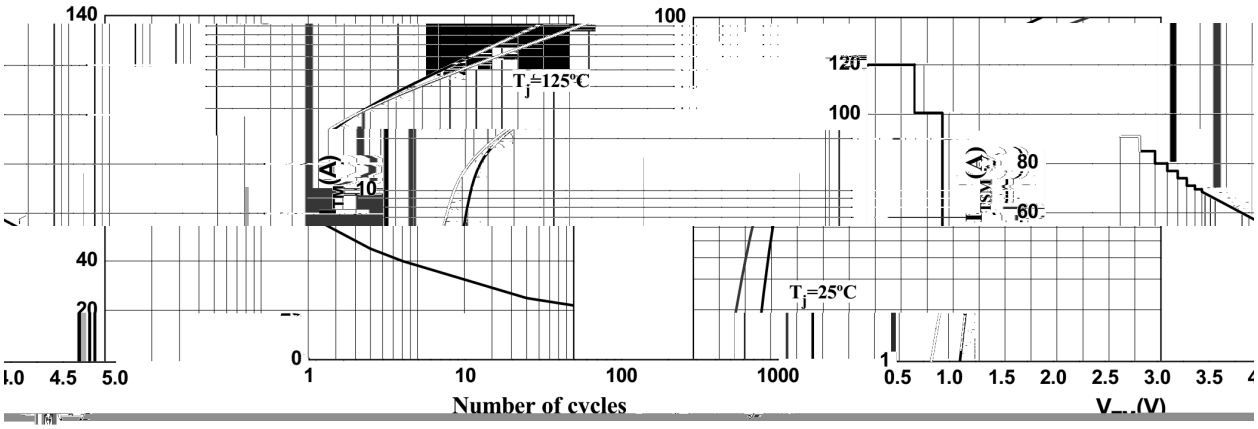


FIG.1 Maximum power dissipation versus RMS on-state current

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



-state characteristics

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

FIG.4: On

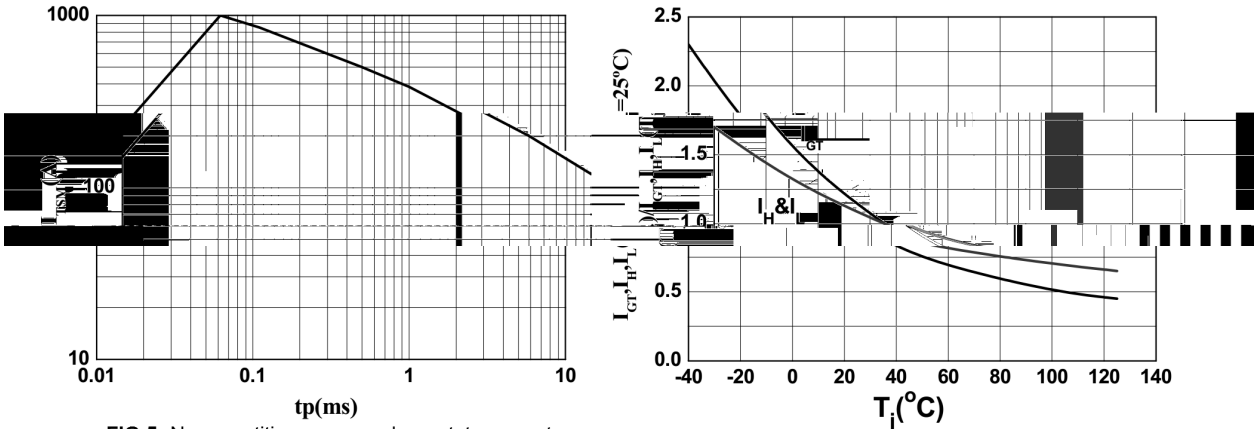


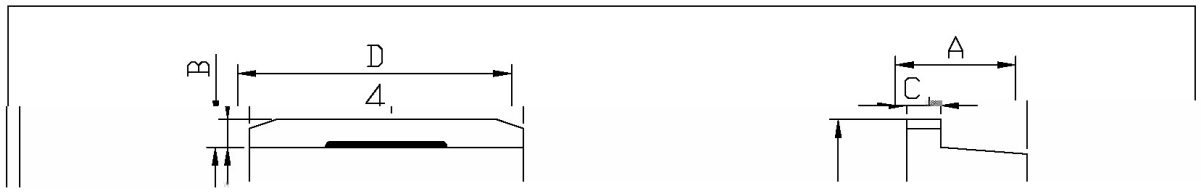
FIG.5: Non-repetitive surge peak on-state current

current and gate trigger ng current and latching current junction temperature

ion a sinusoidal pulse with width ponding value of I2t (dI/dt<100A/us)

FIG.6: ive current, heat versus

/ Package Dimensions

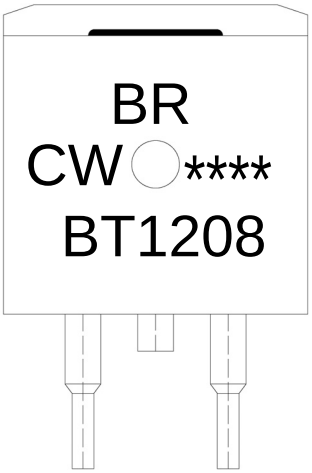


单位：mm

Symbol	Dimensions In Millimeters		Symbol	Dimensions In Millimeter	
	Min	Max		Min	Max
A	4.30	4.70	E	6.00	6.40
B	2.00	2.40	e1	2.34	2.74
b	0.70	0.90	e2	4.88	5.28
b1	1.15	1.35	L1	15.00	16.00
b2	0.40	0.60	L2	2.24	2.84
C	1.20	1.40	L3	1.20	1.60
D	9.80	10.20			

TO-263

/ Marking Instructions



BR	
CW	I_{GT}
****	
BT1208	

Note:

BR:	Company Code
CW:	I_{GT} Bracket code
****:	Lot No. Code, code change with Lot No
BT1208:	Product Type Code