

/ Descriptions

TO-263

Triac in a TO-263 Plastic Package.

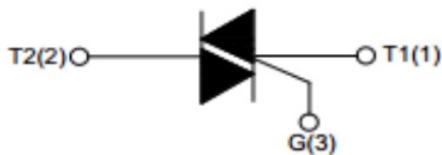
/ Features

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

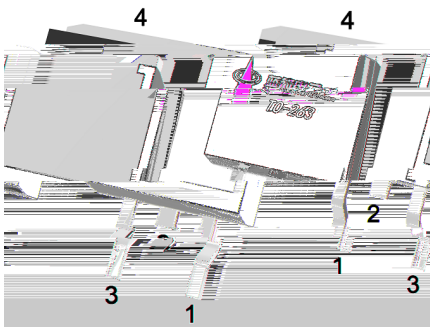
/ Applications

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($T_a=25$)

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, $T_j=25^{\circ}C$)	$I_{TSM}(t=20ms)$	120	A
I^2t value for fusing($T_j=25$)	$I^2t_{(tp=10ms)}$	78	A ² s
Critical rate of rise of on-state current ($I_G=2I_{GT}$, $f=120Hz$ $T_j=125$)	dI/dt I-II-III	50	A/ μs
Peak gate current($t_p=20\mu s$ $T_j=125$)	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($T_j=25$)

3 / Snubberless and logic level 3 quadrants)

Symbol	Test Conditions	Quadrant	Value		Unit
I_{GT}	$V_D=12V$ $R_L=30\Omega$	I-II-III	Max.	35	mA
V_{GT}	$V_D=12V$ $R_L=30\Omega$	I-II-III	Max.	1.3	V
V_{GD}	$V_D=V_{DRM}$ $R_L=3.3K\Omega$ $T_j=125$	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	$T_j=125$	Min.	500	V/ μs
V_{TM}	$I_{TM}=17A$ $t_p=380\mu s$	$T_j=25$	Max.	1.55	V
I_{DRM}	$V_D=V_{DRM}$ $V_R=V_{RRM}$	$T_j=25$		5	μA
I_{RRM}		$T_j=125$		1	mA

/ Electrical Characteristic Curve

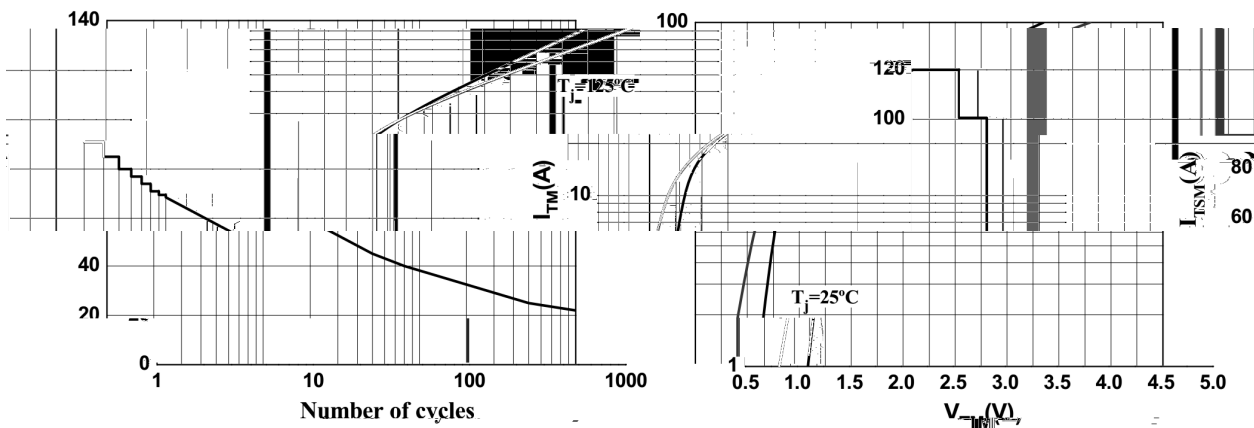
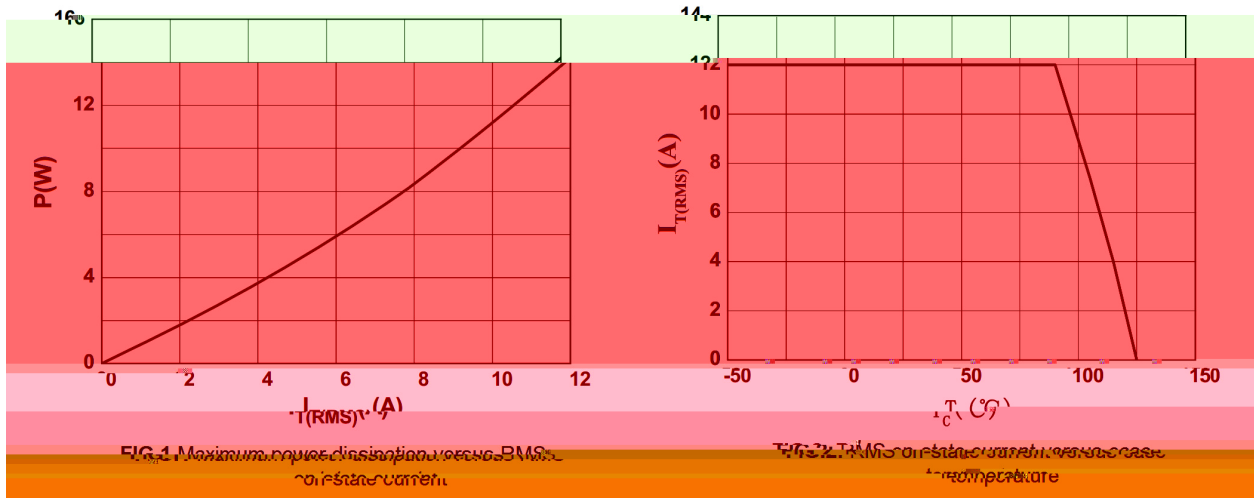


FIG.3: Surge peak on-state current versus number of cycles

FIG.4: On-state characteristics

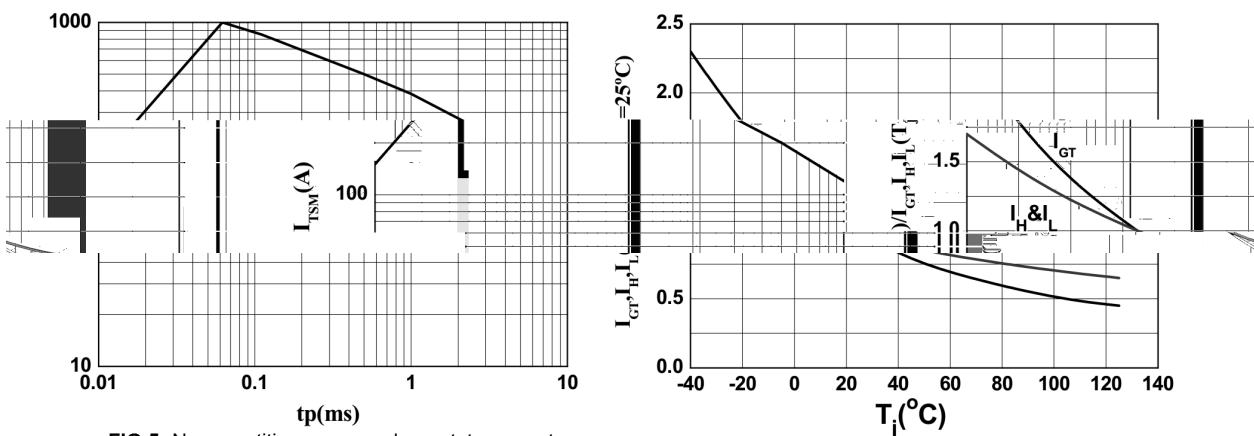
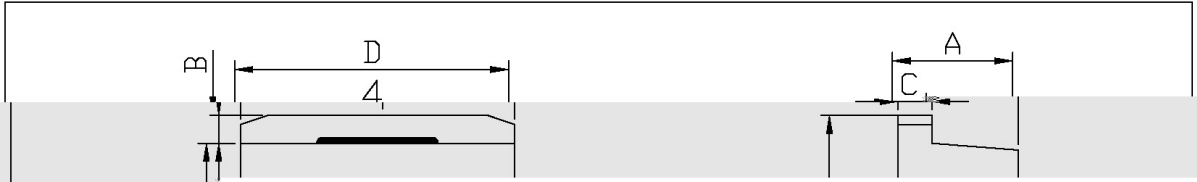
FIG.5: Non repetitive surge peak on-state current and gate current characteristics for a sinusoidal pulse with width $tp < 10$ ms, and corresponding value of $dI/dt < 100$ A/μs

FIG.6: Static reverse current, holding current versus junction temperature

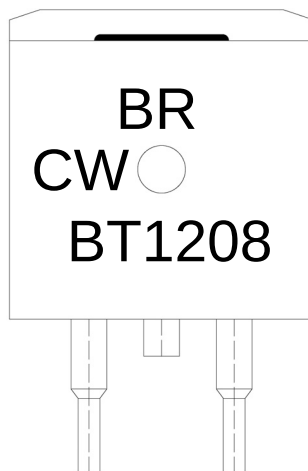
/ Package Dimensions



单位: mm							
Symbol	Dimensions in Millimeters		Symbol	Dimensions in Millimeters			
	Min	Max		Min	Max		
A	4.30	4.70	E	9.00	9.40		
B	1.00	1.40	e1	2.24	2.74		
b	0.70	0.90	e2	4.88	5.28		
b1	1.15	1.35	L1	15.00	16.4		
b2	0.40	0.60	L2	2.24	2.8		
C	1.20	1.40	L3	1.20	1.60		
D	9.80	10.20					

—253

/ 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

