

/ Descriptions

WO0566

Triac in a TO-263 Plastic Package.

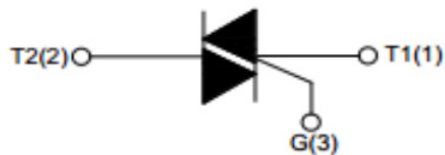
/ Features

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

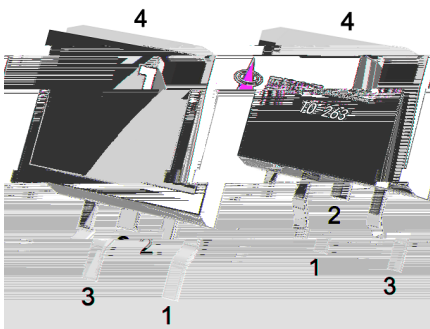
/ Applications

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($T_a=25^\circ\text{C}$)

Parameter	Symbol	Rating	Unit
Repetitive peak off-state/reverse voltages($T_j=125^\circ\text{C}$)	$V_{\text{DRM}}/V_{\text{RRM}}$	800	V
RMS on-state current($T_c=90^\circ\text{C}$)	$I_{\text{T(RMS)}}$	12	A
Non repetitive surge peak on-state current(full cycle, $T_j=25^\circ\text{C}$)	$I_{\text{TSM}(t=20\text{ms})}$	120	A
I^2t value for fusing($T_j=25^\circ\text{C}$)	$I^2t_{(tp=10\text{ms})}$	78	A^2s
Critical rate of rise of on-state current ($I_G=2I_{\text{GT}}$, $f=120\text{Hz}$ $T_j=125^\circ\text{C}$)	dI/dt I-II-III	50	$\text{A}/\mu\text{s}$
Peak gate current($t_p=20\mu\text{s}$ $T_j=125^\circ\text{C}$)	I_{GM}	4.0	A
Average gate power dissipation($T_j=125^\circ\text{C}$)	$P_{\text{G(AV)}}$	1	W
Operating junction temperature range	T_j	-40 ~ 125	
Storage junction temperature range	T_{stg}	-40 ~ 150	
Junction to ambient(AC)	$R_{\text{th(j-a)}}$	45	/W
Junction to case for(AC)	$R_{\text{th(j-c)}}$	1.4	

/ Electrical Characteristics($T_j=25^\circ\text{C}$)

3 / Snubberless and logic level 3 quadrants)

Symbol	Test Conditions	Quadrant	Value		Unit
I_{GT}	$V_D=12\text{V}$ $R_L=30\Omega$	I-II-III	Max.	10	mA
V_{GT}	$V_D=12\text{V}$ $R_L=30\Omega$	I-II-III	Max.	1.3	V
V_{GD}	$V_D=V_{\text{DRM}}$ $R_L=3.3\text{K}\Omega$ $T_j=125^\circ\text{C}$	I-II-III	Min.	0.2	V
I_L	$I_G=1.2I_{\text{GT}}$	I-III	Max.	25	mA
		II		30	
I_H	$I_T=100\text{mA}$		Max.	15	mA
(dV/dt)	$V_D=67\% V_{\text{DRM}}$ Gate Open	$T_j=125^\circ\text{C}$	Min.	40	$\text{V}/\mu\text{s}$
V_{TM}	$I_{\text{TM}}=17\text{A}$ $t_p=380\mu\text{s}$	$T_j=25^\circ\text{C}$	Max.	1.55	V
I_{DRM}	$V_D=V_{\text{DRM}}$ $V_R=V_{\text{RRM}}$	$T_j=25^\circ\text{C}$		10	μA
I_{RRM}		$T_j=125^\circ\text{C}$		1	mA

/ Electrical Characteristic Curve

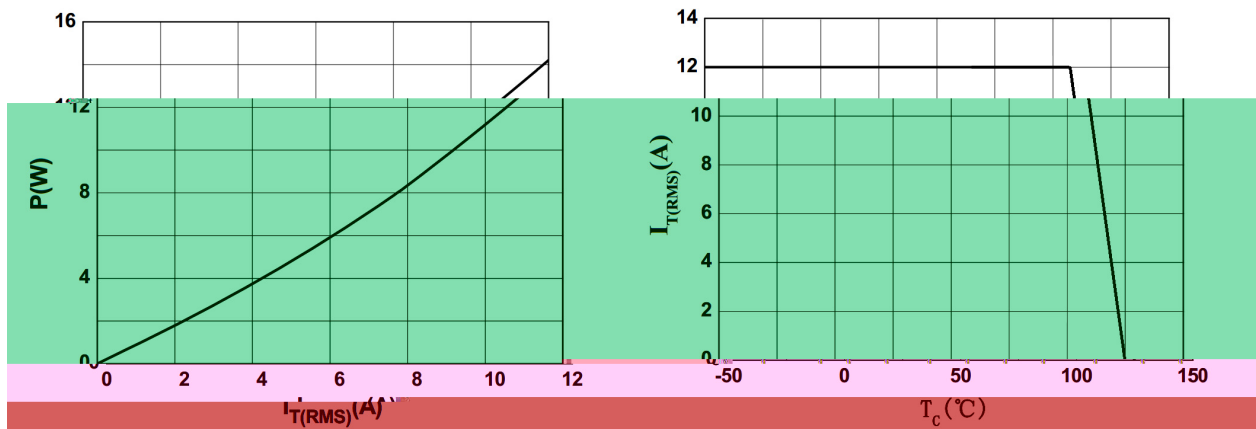


FIG.1: Maximum power dissipation versus RMS

FIG.2: RMS on-state current versus case

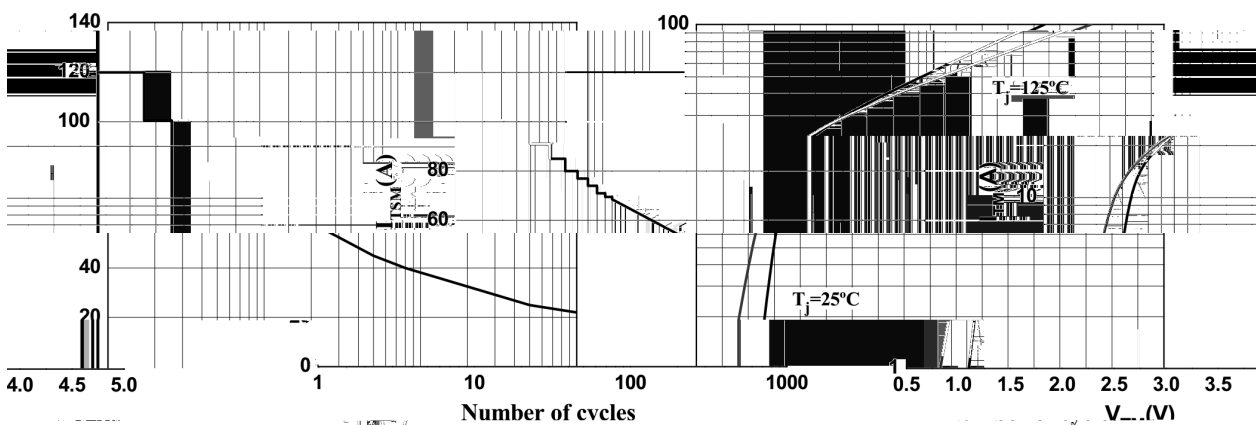


FIG.4: On-state characteristics

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

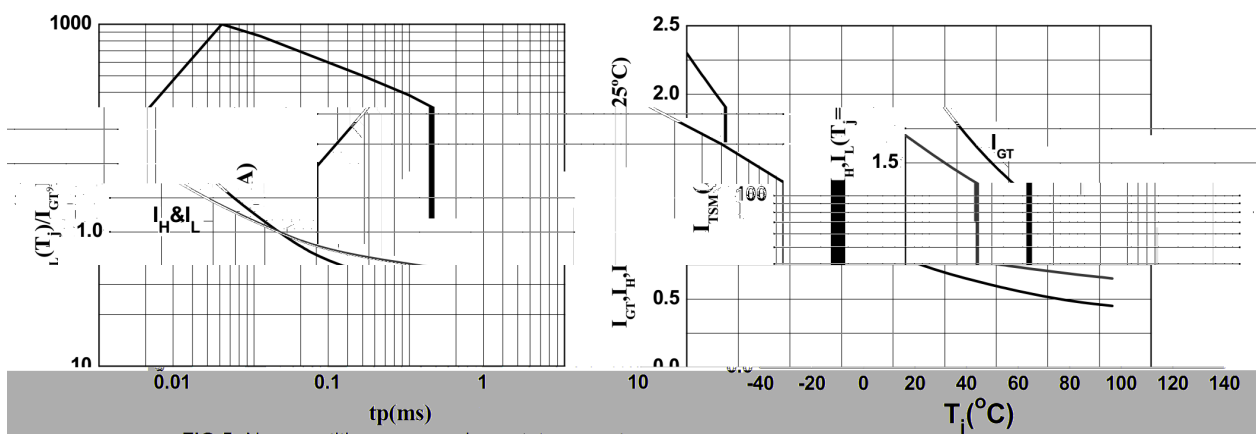
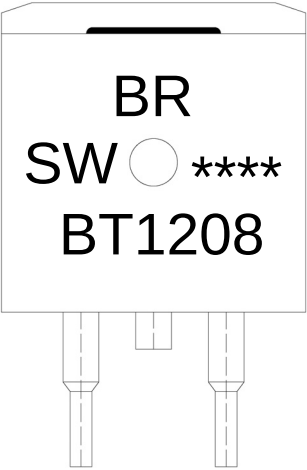


FIG.5: Non-repetitive surge peak on-state current

current, adding current and holding current
 versus junction temperature

/ Marking Instructions

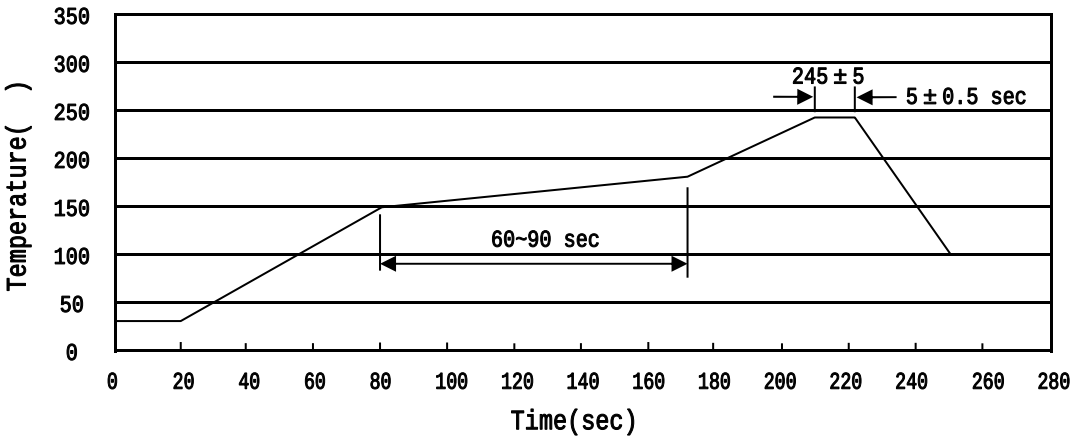


EU	W
VW	I _{GW}
****	N
EW4538	N

Note:

BR:	Company Code
SW:	I _{GT} Bracket code
****:	Lot No. Code, code change with Lot No
BT1208:	Product Type Code

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Note:

- | | | | | | |
|---|-------|-----|-----------|--------|---|
| 1 | 150 | 180 | 60 | 90sec; | 1.Preheating:150~180 , Time:60~90sec. |
| 2 | 245±5 | | 5±0.5sec; | | 2.Peak Temp.:245±5 , Duration:5±0.5sec. |
| 3 | 2~10 | | /sec. | | 3. Cooling Speed: 2~10 /sec. |

/ Resistance to Soldering Heat Test Conditions

260±5 10±1 sec. Temp.:260±5 Time:10±1 sec

/ Packaging SPEC.

/ REEL

Package Type	Units					Dimension (unit mm ³)		
	Units/Reel	Reels/Inner Box	Units/Inner Box	Inner Boxes/Outer Box	Units/Outer Box	Reel	Inner Box	Outer Box
TO-263	800	1	800	6	4,800	13 ×24	360×360×50	380×335×366

1 / TUBE

Package Type	Units					Dimension (unit mm ³)		
	Units/Tube	Tubes/Inner Box	Units/Inner Box	Inner Boxes/Outer Box	Units/Outer Box	Tube	Inner Box	Outer Box
TO-263	50	20	1,000	5	5,000	532×33×7.0	555×164×50	575×290×180

/ Notices