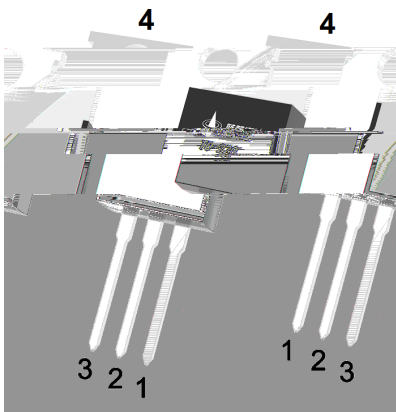
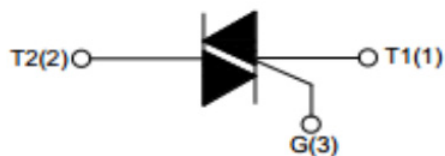


TO-220

Triac in a TO-220 Plastic Package.

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

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



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($T_c=110^\circ\text{C}$)	$I_{\text{T(RMS)}}$	8	A
Non repetitive surge peak on-state current(full cycle, $T_j=25^\circ\text{C}$)	$I_{\text{TSM}(t=20\text{ms})}$	80	A
I^2t value for fusing($T_j=25^\circ\text{C}$)	$I^2t_{(tp=10\text{ms})}$	36	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)	$R_{\text{th(j-a)}}$	60	/W
Junction to case for(AC)	$R_{\text{th(j-c)}}$	1.6	

/ 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.	35	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.	50	mA
		II		60	
I_{H}	$I_{\text{T}}=100\text{mA}$		Max.	35	mA
(dV/dt)	$V_D=67\% V_{\text{DRM}}$ Gate Open	$T_j=125^\circ\text{C}$	Min.	400	$\text{V}/\mu\text{s}$
V_{TM}	$I_{\text{TM}}=11\text{A}$ $t_p=380\mu\text{s}$	$T_j=25^\circ\text{C}$	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

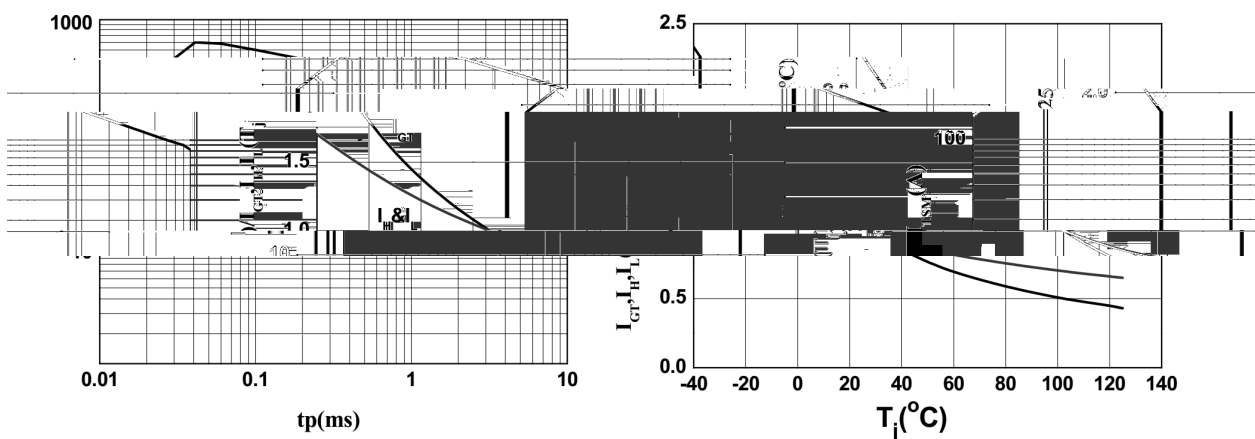
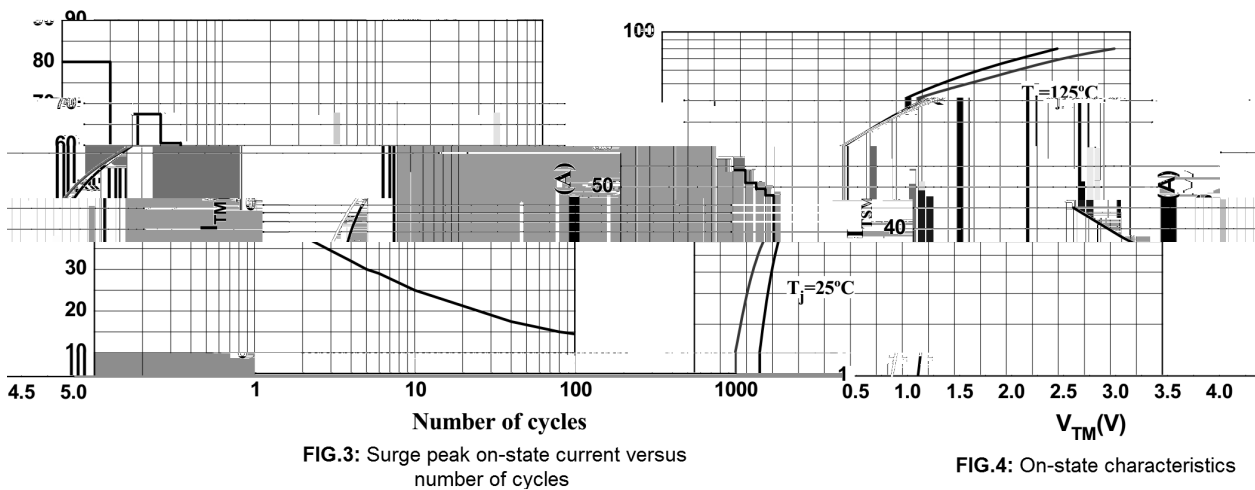
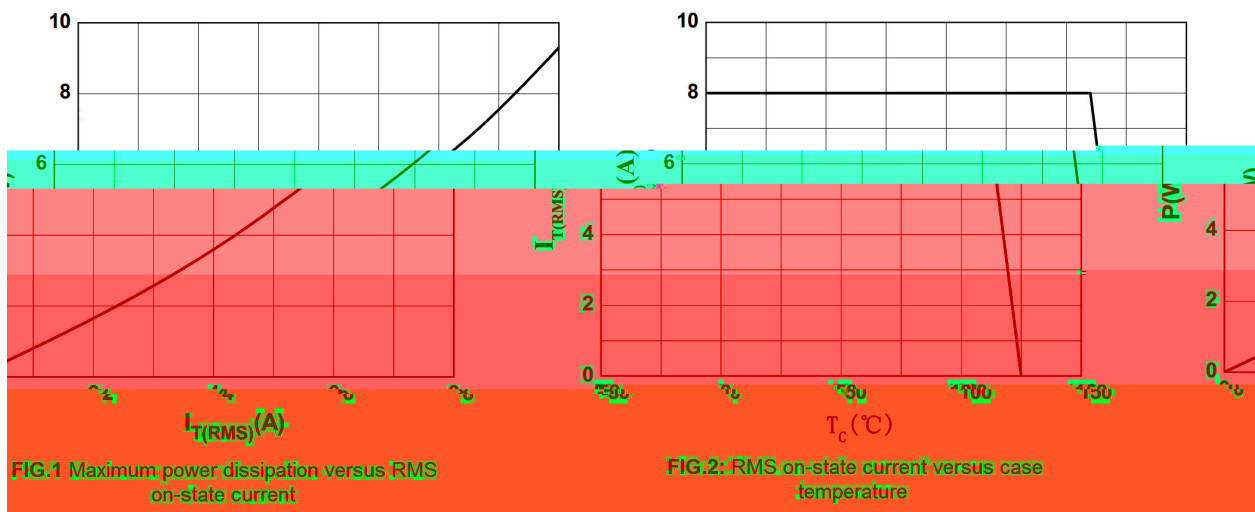
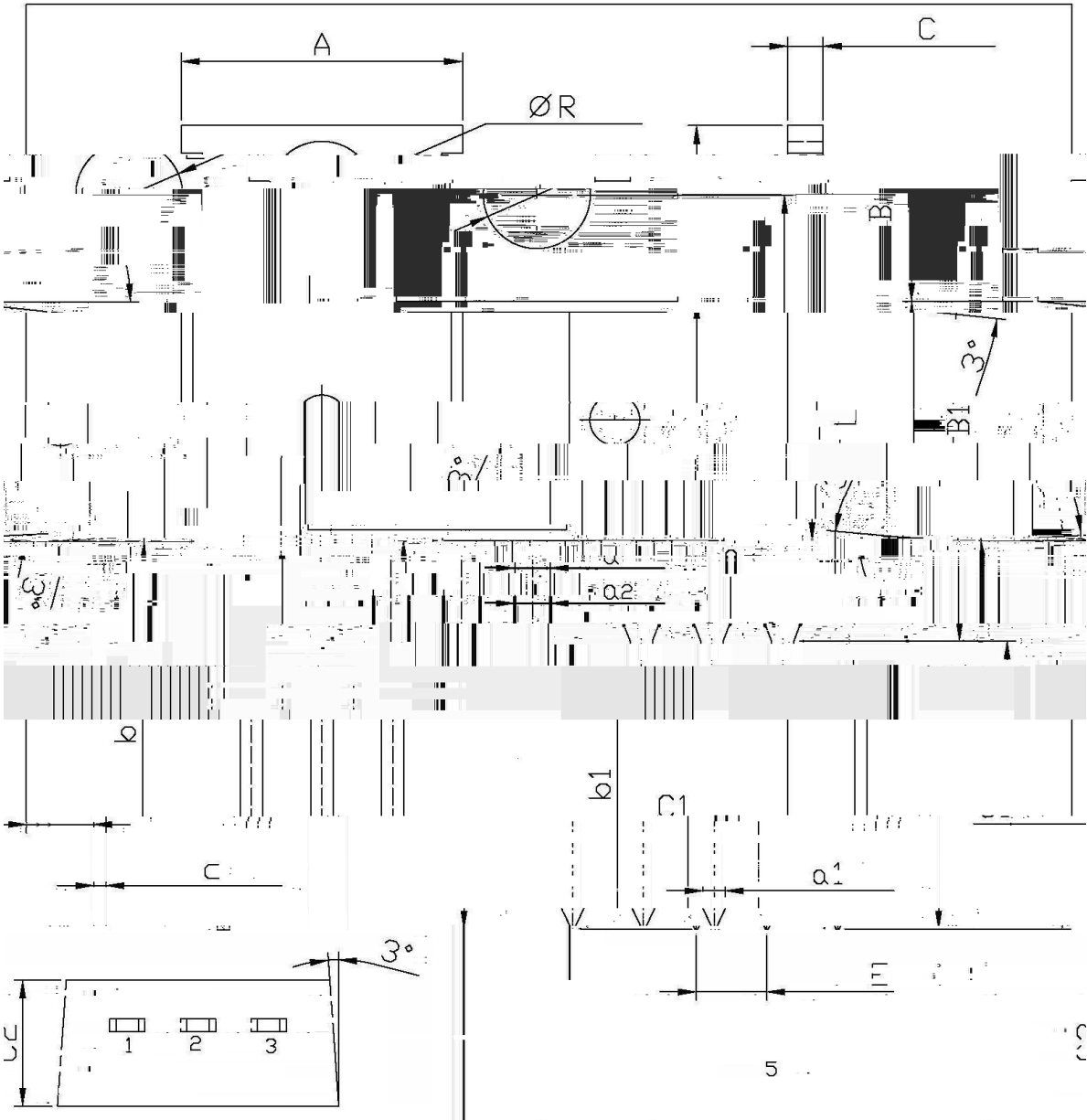


FIG.5: Non-repetitive surge peak on-state current versus junction temperature

/ Package Dimensions

TQ-220

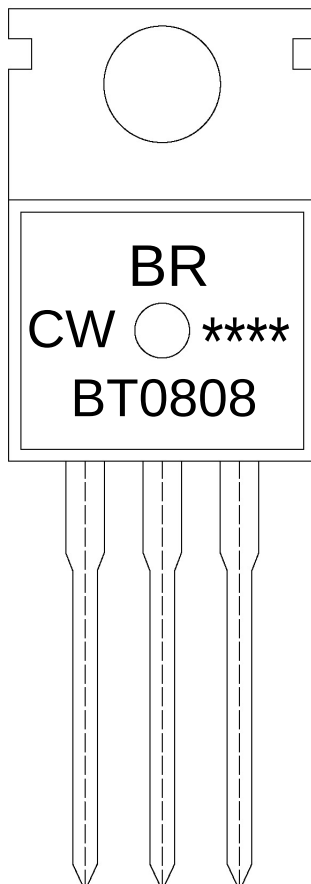
单位: mm



Dimensions In Millimeters				Dimensions In Millimeters			
Symbol	Min	Max	Symbol	Min	Max	Symbol	Min
A	9.8	10.2	C	15.7	16.1	B	6
R	3.56	3.64	B1	12.6	13.6	B1	9
C1	15.7	16.1	C1	12.6	13.6	C1	9
a1	15.7	16.1	a1	12.6	13.6	a1	9
a2	15.7	16.1	a2	12.6	13.6	a2	9
b1	15.7	16.1	b1	12.6	13.6	b1	9



/ Marking Instructions



BR

CW

I_{GT}

BT0808

Note:

BR: Company Code

CW: I_{GT} Bracket code

****: Lot No. Code, code change with Lot No

BT0808: Product Type Code

