

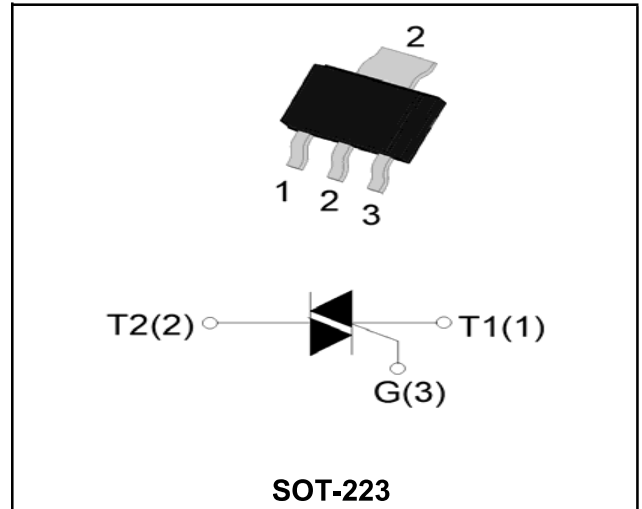
2A 4Quadrants TRIAC

Product Summary

Symbol	Value	Unit
$I_{T(RMS)}$	2	A
$V_{DRM} V_{RRM}$	600/800	V
V_{TM}	1.7	V

FEATURES

The BT132W triac is suitable for general purpose AC switching. It can be used as an ON/OFF function in applications such as heating regulation, induction motor starting circuits, for phase control operation in light dimmers, motor speed controllers.



Absolute maximum ratings (Ta=25°C unless otherwise noted)

Parameter	Symbol	Value	Unit
Repetitive peak off-state voltage	V_{DRM}	600/800	V
Repetitive peak reverse voltage	V_{RRM}	600/800	V
RMS on-state current	$I_{T(RMS)}$	2	A
Non repetitive surge peak on-state current	I_{TSM}	20	A
<small>T_J(init)=25°C, t_p=20ms;</small>			
I ² t value for fusing (t _p =10ms)	I ² t	2.6	A ² s
Critical rate of rise of on-state current (I _G = 2 x I _{GT})	di/dt	I - II - III	50
Peak gate current	I _{GM}	2	A
Average gate power dissipation	P _{G(AV)}	0.5	W
Junction Temperature	T _J	+125	°C
Storage Temperature	T _{STG}	-40 ~+150	°C

Electrical characteristics (TA=25°C, unless otherwise noted)

Parameter	Symbol	Test Condition	Value		Unit	
			D			
Gate trigger current	I_{GT}	$V_D=12V R_L=100\Omega$	I-II-III	MAX	5	mA
			IV	MAX	10	mA
Gate trigger voltage	V_{GT}		ALL	MAX	1.5	V
Non-triggering gate voltage	V_{GD}	$V_D = V_{DRM} T_j = 125^\circ C$ $R_L = 100\Omega$	ALL	MIN	0.2	V
Holding current	I_H	$I_T = 500mA$		MAX	15	mA
Latching current	I_L	$I_e = 1.2I_{GT}$	I-III-IV	MAX	15	mA
			II	MAX	30	
Critical-rate of rise of commutation voltage	dV/dt	$V_D = 2/3V_{DRM} T_j = 125^\circ C$		MIN	5	V/μs

STATIC CHARACTERISTICS

On-state Voltage	V_{TM}	$I_{TM}=5A T_j=25^\circ C$		MAX	1.7	V
Repetitive Peak Off-State Current	I_{DRM}	$V_D = V_{DRM} = V_{RRM}$	$T_j = 25^\circ C$	MAX	5	μA
Repetitive Peak Reverse Current	I_{RRM}		$T_j = 125^\circ C$	MAX	1	mA

THERMAL RESISTANCES

Thermal Resistance	$R_{th(j-c)}$	Junction-to-Case (AC)	TYP.	11.3	$^\circ C/W$
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Orderin Information

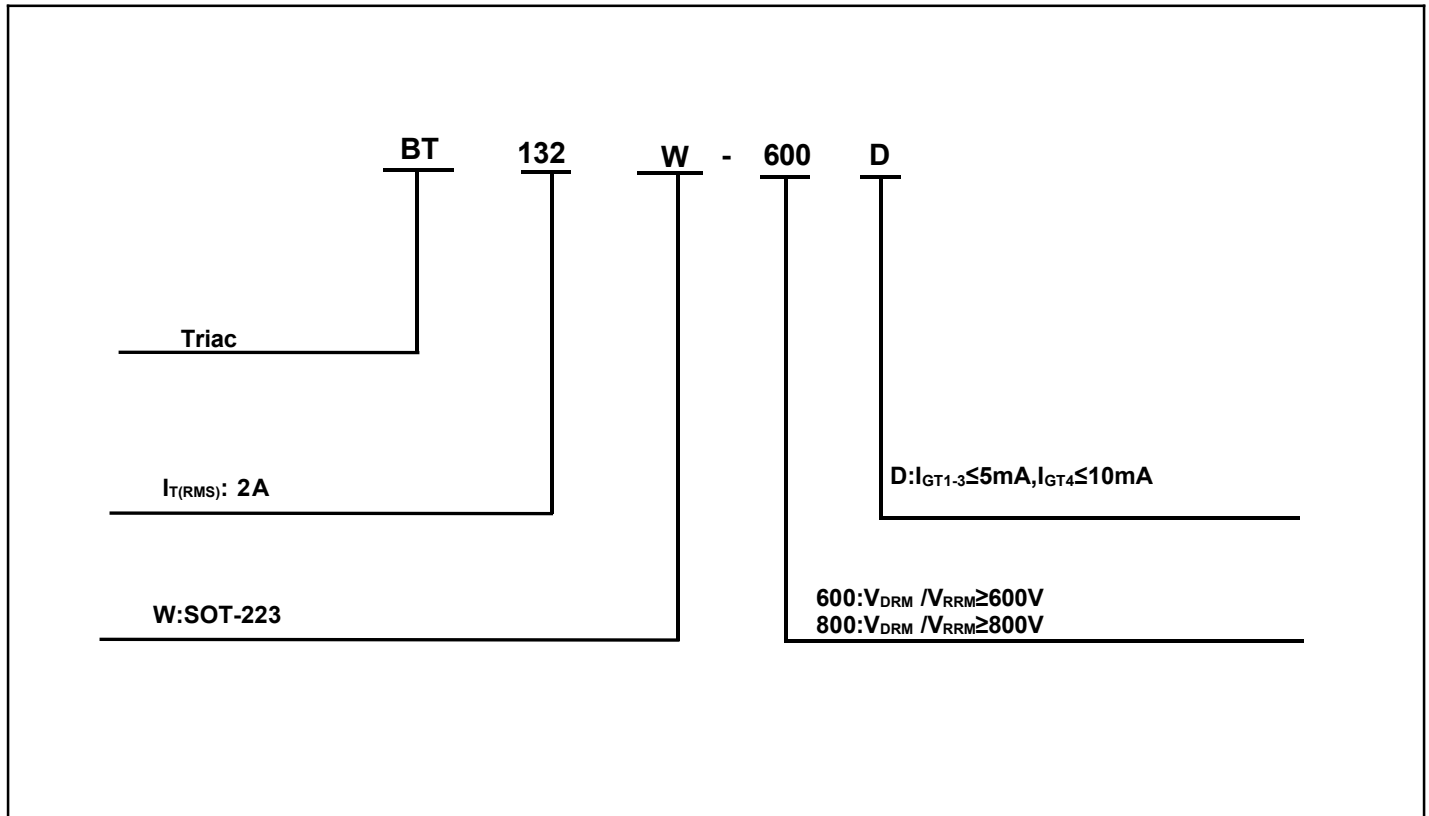


FIG.1 Maximum power dissipation versus RMS state current

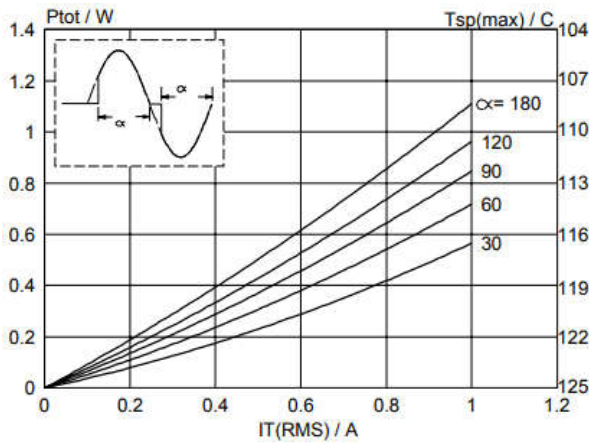


FIG.2: RMS on-state current versus case temperature

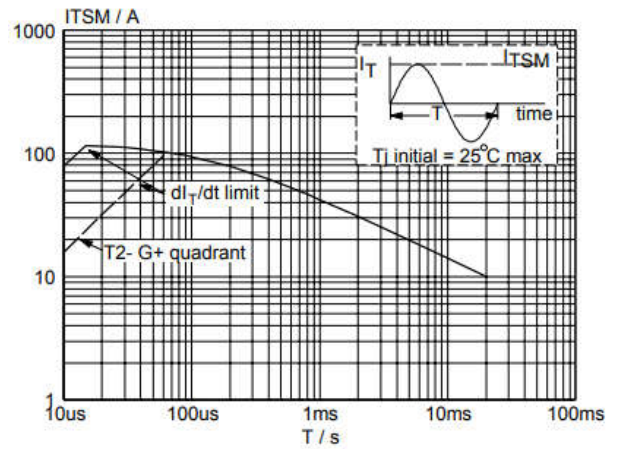


FIG.3: Surge peak on-state current versus

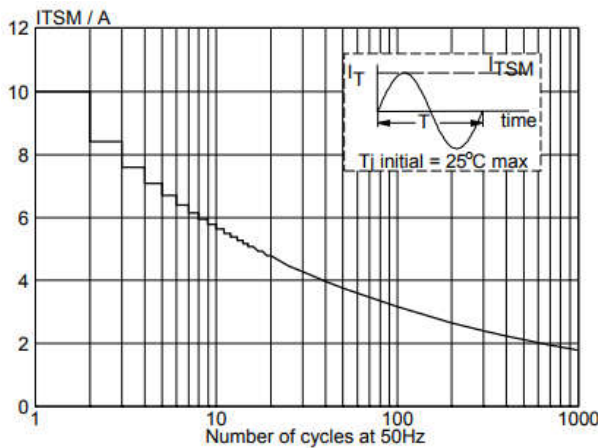


FIG.4: On-state characteristics

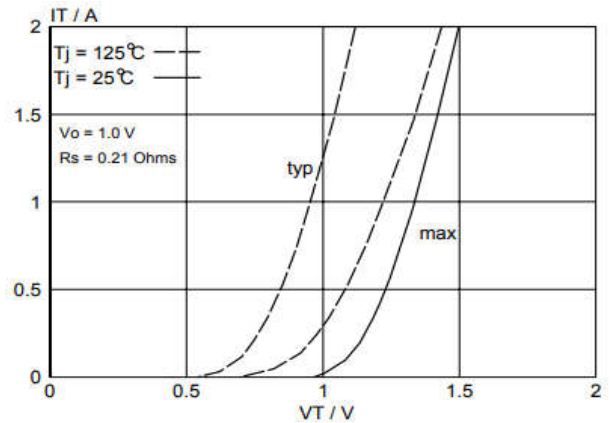
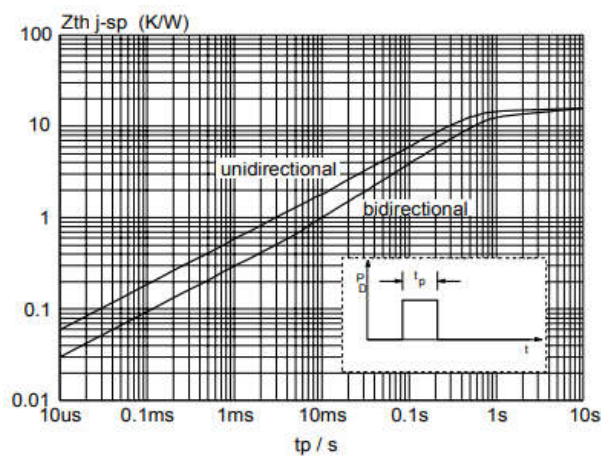
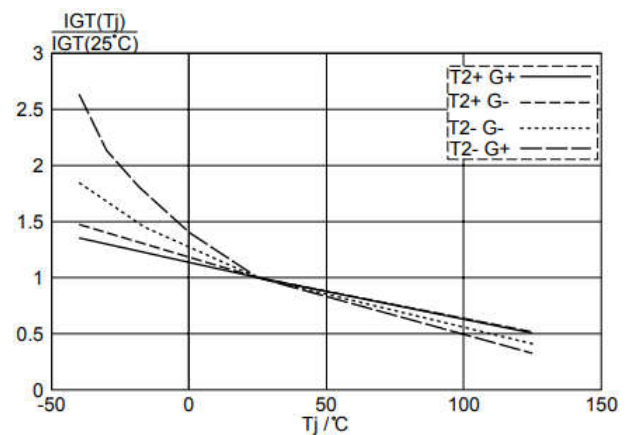


FIG.5: Non-repetitive surge peak on-state current for a sinusoidal pulse with width t_p and value of I_{zt}

(I II III $dI/dt < 50A/\mu s$; IV: $dI/dt < 30A/\mu s$)

FIG.6: Relative variations of gate trigger current, holding current and latching current versus junction temperature



Ordering information

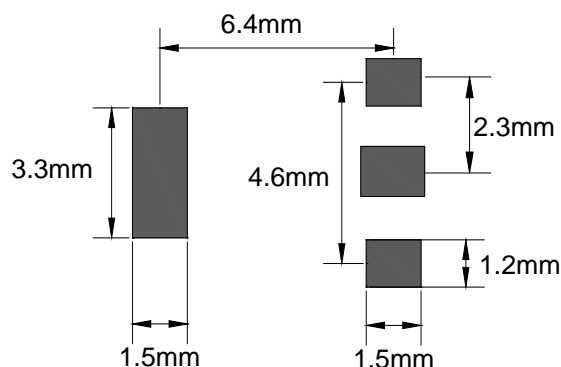
Package	Packing Description	Base Quantity	Packing Quantity
SOT-223	Tape/Reel, 7" reel	1000pcs/Reel	6000PCS/Box 30000PCS/Carton
	Tape/Reel, 13" reel	2500pcs/Reel	5000PCS/Box 30000PCS/Carton

Package Dimensions

SOT-223

Dim	Millimeter		Inches	
	Min.	Max.	Min.	Max.
A	1.50	1.80	0.059	0.071
A1	0.00	0.10	0.000	0.004
A2	1.50	1.70	0.059	0.067
b	0.65	0.75	0.026	0.030
c	0.20	0.30	0.008	0.012
D	6.40	6.60	0.252	0.260
D1	2.90	3.10	0.114	0.122
E	3.30	3.70	0.130	0.146
E1	6.85	7.15	0.270	0.281
e	2.20	2.40	0.087	0.094
e1	4.40	4.80	0.173	0.189
L	1.65	1.85	0.065	0.073
L1	0.90	1.15	0.035	0.045

The recommended mounting pad size



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