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查询BTA08-200AW供应商

捷多邦, 专业PCB打样工厂

, 24小时加急出货

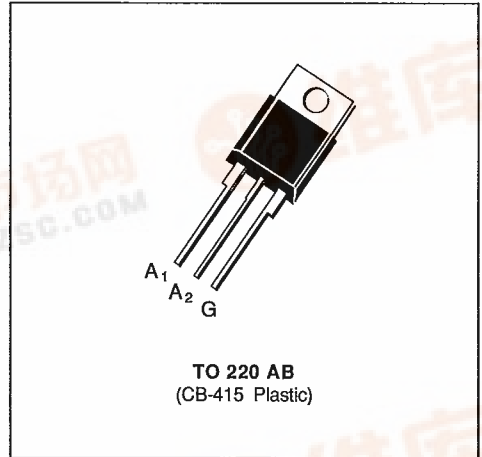
**ST** **SGS-THOMSON**  
MICROELECTRONICS

**BTA 08 AW**

S G S-THOMSON

**SNUBBERLESS TRIACS**

- $I_{TRMS} = 8\text{ A}$  at  $T_c = 90\text{ }^\circ\text{C}$ .
- $V_{DRM} : 200\text{ V}$  to  $800\text{ V}$ .
- $I_{GT} = 75\text{ mA}$  (QI-II-III).
- GLASS PASSIVATED CHIP.
- HIGH SURGE CURRENT :  $I_{TSM} = 80\text{ A}$ .
- HIGH COMMUTATION CAPABILITY :  
( $di/dt$ )<sub>c</sub> >  $10\text{ A/ms}$  without snubber.
- INSULATING VOLTAGE :  $2500\text{ V}_{RMS}$ .



**DESCRIPTION**

New range suited for applications such as phase control and static switching on inductive or resistive load.

**ABSOLUTE RATINGS** (limiting values)

Symbol	Parameter		Value	Unit
$I_{TRMS}$	RMS on-state current (360 ° conduction angle)	$T_c = 90\text{ }^\circ\text{C}$	8	A
$I_{TSM}$	Non repetitive surge peak on-state current ( $T_j$ initial = $25\text{ }^\circ\text{C}$ )	$t = 8.3\text{ ms}$	85	A
		$t = 10\text{ ms}$	80	
$I^2t$	$I^2t$ value	$t = 10\text{ ms}$	32	$\text{A}^2\text{s}$
$di/dt$	Critical rate of rise of on-state current (1)	Repetitive $F = 50\text{ Hz}$	20	$\text{A}/\mu\text{s}$
		Non Repetitive	100	
$T_{stg}$ $T_j$	Storage and operating junction temperature range		- 40, + 150 - 40, + 125	$^\circ\text{C}$ $^\circ\text{C}$

Symbol	Parameter	BTA 08-					Unit
		200 AW	400 AW	600 AW	700 AW	800 AW	
$V_{DRM}$	Repetitive peak off-state voltage (2)	$\pm 200$	$\pm 400$	$\pm 600$	$\pm 700$	$\pm 800$	V

(1) Gate supply :  $I_g = 750\text{ mA}$  -  $di_g/dt = 1\text{ A}/\mu\text{s}$ .

(2)  $T_j = 125\text{ }^\circ\text{C}$ .



BTA 08 AW

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**THERMAL RESISTANCES**

Symbol	Parameter	Value	Unit
$R_{th(f-a)}$	Junction to ambient	60	°C/W
$R_{th(f-c)}$ DC	Junction to case for DC	4.3	°C/W
$R_{th(f-c)}$ AC	Junction to case for 360 ° conduction angle (F = 50 Hz)	3.2	°C/W

**GATE CHARACTERISTICS (maximum values)**

$P_{GM} = 40 W$  ( $t = 10 \mu s$ )  $P_{G(AV)} = 1 W$   $I_{GM} = 4 A$  ( $t = 10 \mu s$ )  $V_{GM} = 16 V$  ( $t = 10 \mu s$ ).

**S G S-THOMSON**

**ELECTRICAL CHARACTERISTICS**

Symbol	Test Conditions	Quadrants	Min.	Typ.	Max.	Unit
$I_{GT}$	$T_j = 25 \text{ °C}$ $V_D = 12 V$ $R_L = 33 \Omega$ Pulse duration > 20 $\mu s$	I-II-III	2		75	mA
$V_{GT}$	$T_j = 25 \text{ °C}$ $V_D = 12 V$ $R_L = 33 \Omega$ Pulse duration > 20 $\mu s$	I-II-III			1.5	V
$V_{GD}$	$T_j = 125 \text{ °C}$ $V_D = V_{DRM}$ $R_L = 3.3 k\Omega$ Pulse duration > 20 $\mu s$	I-II-III	0.2			V
$I_H^*$	$T_j = 25 \text{ °C}$ $I_T = 100 mA$ Gate open $R_L = 140 \Omega$				75	mA
$I_L$	$T_j = 25 \text{ °C}$ $V_D = 12 V$ $I_G = 500 mA$ Pulse duration > 20 $\mu s$	I-III		75		mA
		II		150		
$V_{TM}^*$	$T_j = 25 \text{ °C}$ $I_{TM} = 11 A$ $t_p = 10 ms$				1.75	V
$I_{DRM}^*$	$T_j = 25 \text{ °C}$ $V_{DRM}$ rated $T_j = 125 \text{ °C}$ Gate open				0.01	mA
					2	
$dv/dt^*$	$T_j = 125 \text{ °C}$ Gate open Linear slope up to 0.67 $V_{DRM}$		750	1000		V/ $\mu s$
$(di/dt)_c^*$	$T_j = 125 \text{ °C}$ $V_{DRM}$ rated Without snubber		10	20		A/ms
$t_{gt}$	$T_j = 25 \text{ °C}$ $di_G/dt = 3.5 A/\mu s$ $I_G = 500 mA$ $I_T = 11 A$ $V_D = V_{DRM}$	I-II-III		2		$\mu s$

\* For either polarity of electrode A<sub>2</sub> voltage with reference to electrode A<sub>1</sub>.

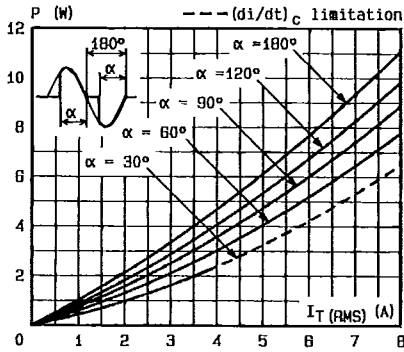


Fig.1 - Maximum mean power dissipation versus RMS on-state current (F = 60 Hz).

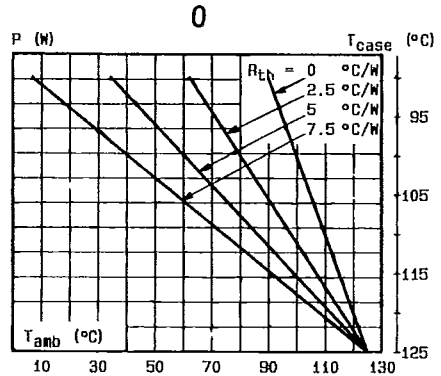


Fig.2 - Correlation between maximum mean power dissipation and maximum allowable temperatures (T<sub>amb</sub> and T<sub>case</sub>) for different thermal resistances heatsink + contact.

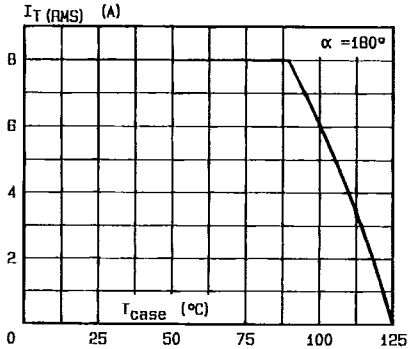


Fig.3 - RMS on-state current versus case temperature.

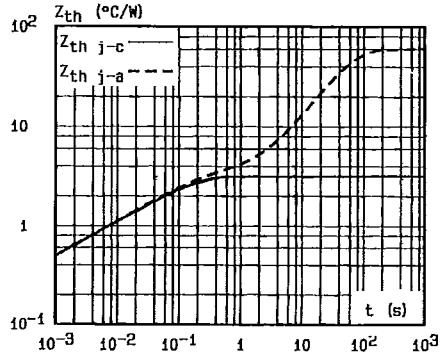


Fig.4 - Thermal transient impedance junction to case and junction to ambient versus pulse duration.

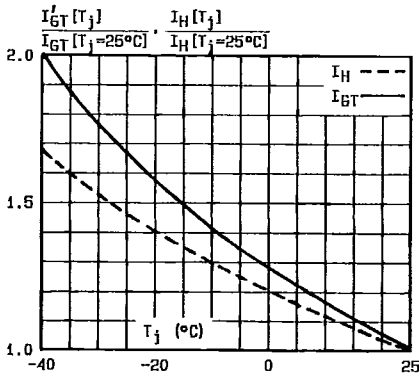


Fig.5 - Relative variation of gate trigger current and holding current versus junction temperature.

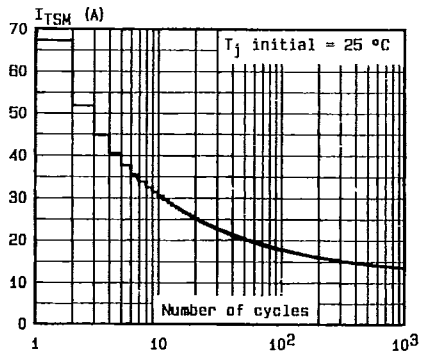


Fig.6 - Non repetitive surge peak on-state current versus number of cycles.

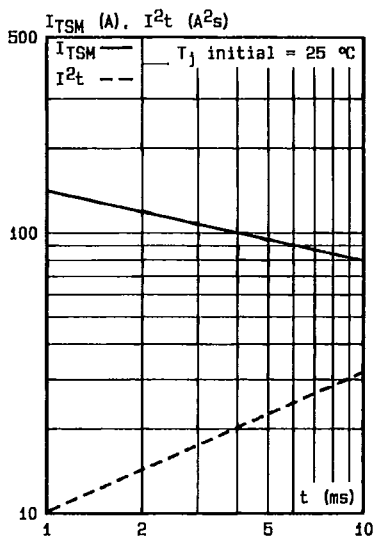


Fig.7 - Non repetitive surge peak on-state current for a sinusoidal pulse with width :  $t \leq 10$  ms, and corresponding value of  $I^2t$ .

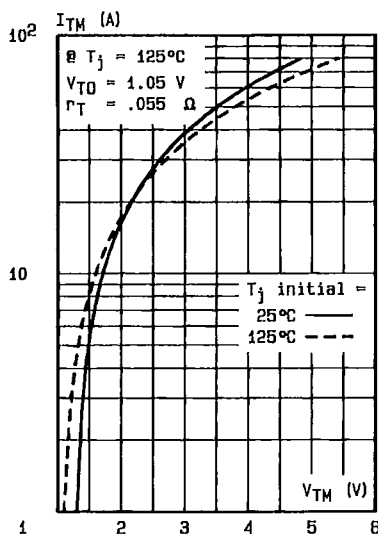
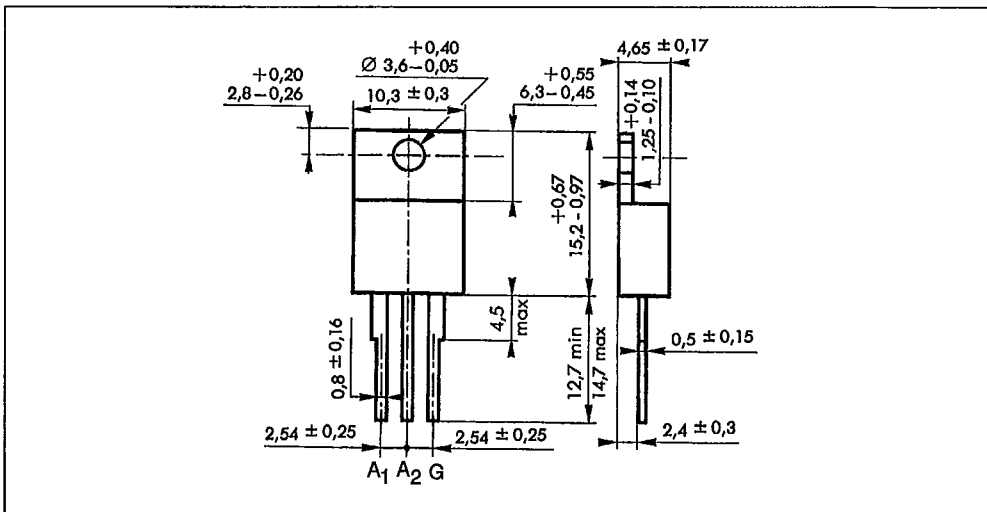


Fig.8 - On-state characteristics (maximum values).

**PACKAGE MECHANICAL DATA**

TO 220 AB (CB-415) Plastic



Cooling method : by conduction (method C)

Marking : type number

Weight : 2 g