



PRODUCT NAME : BTA06-600 6A 600V TR
IAC

PRICE : Rs 49.00
SKU : RM2008



DESCRIPTION

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Features

- Gate Turn-On Voltage (Vgt): 1.5V
- Peak Off-State Voltage(Vdrm): 600V
- On-State Current (It): 6.0A
- Gate Current (Igt): 10mA
- Typical Voltage Change over Time (dV/dT): 10V/μs



BTA06 T/D/S/A
BTB06 T/D/S/A

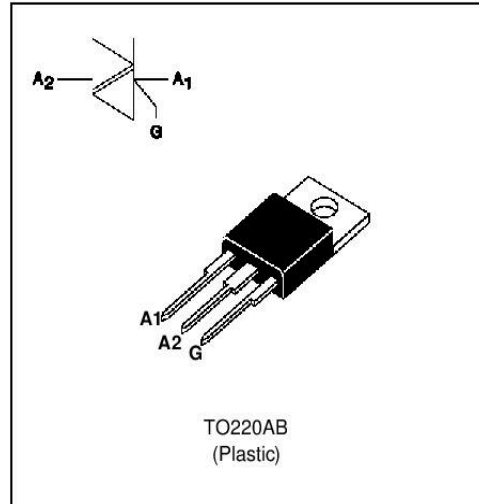
SENSITIVE GATE TRIACS

FEATURES

- VERY LOW $I_{GT} = 10\text{mA max}$
- LOW $I_H = 15\text{mA max}$
- BTA Family :
 INSULATING VOLTAGE = $2500V_{(RMS)}$
 (UL RECOGNIZED : E81734)

DESCRIPTION

The BTA/BTB06 T/D/S/A triac family are high performance glass passivated PNP devices. These parts are suitable for general purpose applications where gate high sensitivity is required. Application on 4Q such as phase control and static switching.



ABSOLUTE RATINGS (limiting values)

Symbol	Parameter		Value	Unit	
$I_T(RMS)$	RMS on-state current (360° conduction angle)	BTA	$T_c = 85^\circ\text{C}$	6	A
		BTB	$T_c = 90^\circ\text{C}$		
I_{TSM}	Non repetitive surge peak on-state current (T_j initial = 25°C)		$t_p = 8.3 \text{ ms}$	63	A
			$t_p = 10 \text{ ms}$	60	
I^2t	I^2t value		$t_p = 10 \text{ ms}$	18	A^2s
di/dt	Critical rate of rise of on-state current Gate supply : $I_G = 50\text{mA}$ $di_G/dt = 0.1\text{A}/\mu\text{s}$		Repetitive $F = 50 \text{ Hz}$	10	$\text{A}/\mu\text{s}$
			Non Repetitive	50	
T_{stg} T_j	Storage and operating junction temperature range			- 40 to + 150	$^\circ\text{C}$
				- 40 to + 110	$^\circ\text{C}$
T_l	Maximum lead temperature for soldering during 10 s at 4.5 mm from case			260	$^\circ\text{C}$

Symbol	Parameter	BTA / BTB06-			Unit
		400 T/D/S/A	600 T/D/S/A	700 T/D/S/A	
V_{DRM} V_{RRM}	Repetitive peak off-state voltage $T_j = 110^\circ\text{C}$	400	600	700	V

BTA06 T/D/S/A / BTB06 T/D/S/A

THERMAL RESISTANCES

Symbol	Parameter	Value	Unit
Rth (j-a)	Junction to ambient	60	°C/W
Rth (j-c) DC	Junction to case for DC	BTA	4.4
		BTB	3.2
Rth (j-c) AC	Junction to case for 360° conduction angle (F = 50 Hz)	BTA	3.3
		BTB	2.4

GATE CHARACTERISTICS (maximum values)

P_G (AV) = 1W P_{GM} = 10W (tp = 20 μs) I_{GM} = 4A (tp = 20 μs) V_{GM} = 16V (tp = 20 μs).

ELECTRICAL CHARACTERISTICS

Symbol	Test Conditions	Quadrant		Suffix				Unit
				T	D	S	A	
I_{GT}	$V_D=12V$ (DC) $R_L=33\Omega$ $T_j=25^\circ C$	I-II-III	MAX	5	5	10	10	mA
		IV	MAX	5	10	10	25	
V_{GT}	$V_D=12V$ (DC) $R_L=33\Omega$ $T_j=25^\circ C$	I-II-III-IV	MAX	1.5				V
V_{GD}	$V_D=V_{DRM}$ $R_L=3.3k\Omega$ $T_j=110^\circ C$	I-II-III-IV	MIN	0.2				V
tgt	$V_D=V_{DRM}$ $I_G = 40mA$ $dI_G/dt = 0.5A/\mu s$ $T_j=25^\circ C$	I-II-III-IV	TYP	2				μs
I_L	$I_G = 1.2 I_{GT}$ $T_j=25^\circ C$	I-III-IV	TYP	10	10	20	20	mA
		II		20	20	40	40	
I_H *	$I_T = 100mA$ gate open $T_j=25^\circ C$		MAX	15	15	25	25	mA
V_{TM} *	$I_{TM} = 8.5A$ tp= 380μs $T_j=25^\circ C$		MAX	1.65				V
I_{DRM} I_{RRM}	V_{DRM} Rated V_{RRM} Rated $T_j=25^\circ C$		MAX	0.01				mA
		$T_j=110^\circ C$	MAX	0.75				
dV/dt *	Linear slope up to $V_D=67\%V_{DRM}$ gate open $T_j=110^\circ C$		TYP	10	10	-	-	V/μs
			MIN	-	-	10	10	
(dV/dt)c *	(dI/dt)c = 2.7A/ms $T_j=110^\circ C$		TYP	1	1	5	5	V/μs

* For either polarity of electrode A₂ voltage with reference to electrode A₁.

