PRODUCT NAME : BTA08-600 8A 600V TR
IAC

PRICE : Rs 35.00
SKU : RM2009

DESCRIPTION

Features

- Gate Turn-On Voltage (Vgt): 1.3V

- Peak Off-State Voltage(Vdrm): 600V

- On-State Current (It): 8.0A

- Gate Current (Igt): 25mA

- Av. Gate Power Dissipation (Pg): 1W

- Typical Voltage Change over Time (dV/dT): 200V/µs

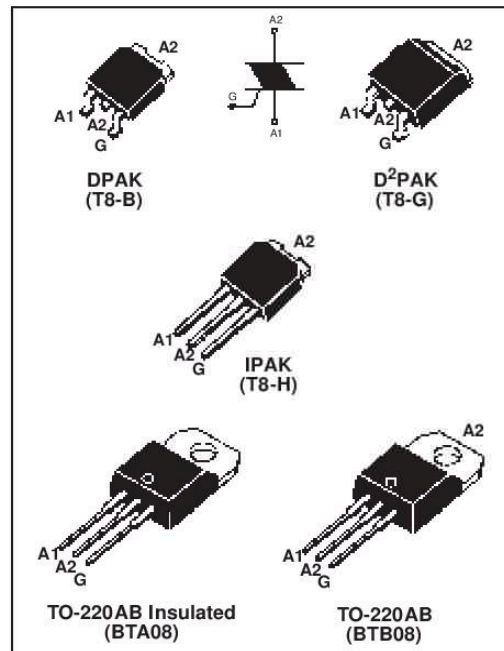# BTA/BTB08 and T8 Series

SNUBBERLESS™, LOGIC LEVEL & STANDARD

8A TRIACs

MAIN FEATURES:

Symbol	Value	Unit
$I_{T(RMS)}$	8	A
V_{DRM}/V_{RRM}	600 and 800	V
$I_{GT (Q_1)}$	5 to 50	mA

DESCRIPTION

Available either in through-hole or surface-mount packages, the BTA/BTB08 and T8 triac series is suitable for general purpose AC switching. They can be used as an ON/OFF function in applications such as static relays, heating regulation, induction motor starting circuits... or for phase control operation in light dimmers, motor speed controllers,...

The snubberless versions (BTA/BTB...W and T8 series) are specially recommended for use on inductive loads, thanks to their high commutation performances. By using an internal ceramic pad, the BTA series provides voltage insulated tab (rated at 2500V RMS) complying with UL standards (File ref.: E81734)

DPAK (T8-B)

D²PAK (T8-G)

IPAK (T8-H)

TO-220AB Insulated (BTA08)

TO-220AB (BTB08)

ABSOLUTE MAXIMUM RATINGS

Symbol	Parameter			Value	Unit
$I_{T(RMS)}$	RMS on-state current (full sine wave)	DPAK / D PAK IPAK / TO-220AB	$Tc = 110°C$	8	A
		TO-220AB Ins.	$Tc = 100°C$		
I_{TSM}	Non repetitive surge peak on-state current (full cycle, Tj initial = 25°C)	F = 50 Hz	t = 20 ms	80	A
		F = 60 Hz	t = 16.7 ms	84	
I t	I t Value for fusing	tp = 10 ms		45	A s
dI/dt	Critical rate of rise of on-state current $I_G = 2 \times I_{GT}$, tr ≤ 100 ns	F = 120 Hz	$Tj = 125°C$	50	A/µs
I_{GM}	Peak gate current	tp = 20 µs	$Tj = 125°C$	4	A
$P_{G(AV)}$	Average gate power dissipation		$Tj = 125°C$	1	W
T_{stg} T_j	Storage junction temperature range Operating junction temperature range			- 40 to + 150 - 40 to + 125	°C

BTA/BTB08 and T8 Series

ELECTRICAL CHARACTERISTICS (Tj = 25°C, unless otherwise specified)

■ **SNUBBERLESS™ and LOGIC LEVEL (3 Quadrants)**

Symbol	Test Conditions	Quadrant		T8		BTA/BTB08				Unit
				T810	T835	TW	SW	CW	BW	
I_{GT} (1)	V_D = 12 V R_L = 30 Ω	I - II - III	MAX.	10	35	5	10	35	50	mA
V_{GT}		I - II - III	MAX.	1.3						V
V_{GD}	$V_D = V_{DRM}$ R_L = 3.3 kΩ Tj = 125°C	I - II - III	MIN.	0.2						V
I_H (2)	I_T = 100 mA		MAX.	15	35	10	15	35	50	mA
I_L	I_G = 1.2 I_{GT}	I - III	MAX.	25	50	10	25	50	70	mA
		II		30	60	15	30	60	80	
dV/dt (2)	V_D = 67 %V_{DRM} gate open Tj = 125°C		MIN.	40	400	20	40	400	1000	V/µs
(dI/dt)c (2)	(dV/dt)c = 0.1 V/µs Tj = 125°C		MIN.	5.4	-	3.5	5.4	-	-	A/ms
	(dV/dt)c = 10 V/µs Tj = 125°C			2.8	-	1.5	2.8	-	-	
	Without snubber Tj = 125°C			-	4.5	-	-	4.5	7	

■ **STANDARD (4 Quadrants)**

Symbol	Test Conditions	Quadrant		BTA/BTB08		Unit
				C	B	
I_{GT} (1)	V_D = 12 V R_L = 30 Ω	I - II - III	MAX.	25	50	mA
		IV		50	100	
V_{GT}		ALL	MAX.	1.3		V
V_{GD}	$V_D = V_{DRM}$ R_L = 3.3 kΩ Tj = 125°C	ALL	MIN.	0.2		V
I_H (2)	I_T = 500 mA		MAX.	25	50	mA
I_L	I_G = 1.2 I_{GT}	I - III - IV	MAX.	40	50	mA
		II		80	100	
dV/dt (2)	V_D = 67 %V_{DRM} gate open Tj = 125°C		MIN.	200	400	V/µs
(dV/dt)c (2)	(dI/dt)c = 3.5 A/ms Tj = 125°C		MIN.	5	10	V/µs

STATIC CHARACTERISTICS

Symbol	Test Conditions			Value	Unit
V_{TM} (2)	I_{TM} = 11 A tp = 380 µs	Tj = 25°C	MAX.	1.55	V
V_{to} (2)	Threshold voltage	Tj = 125°C	MAX.	0.85	V
R_d (2)	Dynamic resistance	Tj = 125°C	MAX.	50	mΩ
I_{DRM}	$V_{DRM} = V_{RRM}$	Tj = 25°C	MAX.	5	µA
I_{RRM}		Tj = 125°C		1	mA

Note 1: minimum IGT is guaranted at 5% of IGT max.

Note 2: for both polarities of A2 referenced to A1