



**PRODUCT NAME** : BTA24-600 24A 600V T  
RIAC

**PRICE** : Rs 99.00

**SKU** : RM2012



## DESCRIPTION

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## Features

- Gate Turn-On Voltage (Vgt): 1.3V
- Peak Off-State Voltage(Vdrm): 600V
- On-State Current (It): 25.0A
- Gate Current (Igt): 35mA
- Av. Gate Power Dissipation (Pg): 1W
- Typical Voltage Change over Time (dV/dT): 500V/μs



# BTA/BTB24, BTA25, BTA26 and T25 Series

SNUBBERLESS™ & STANDARD

25A TRIACs

**MAIN FEATURES:**

Symbol	Value	Unit
$I_{T(RMS)}$	25	A
$V_{DRM}/V_{RRM}$	600 and 800	V
$I_{GT} (Q_1)$	35 to 50	mA

**DESCRIPTION**

Available either in through-hole or surface and T25 mount packages, the BTA/BTB24-25-26 triac series is suitable for general purpose AC power switching. They can be used as an ON/OFF function in applications such as static relays, heating regulation, water heaters, induction motor starting circuits...or for phase control operation in high power motor speed controllers, soft start circuits...The snubberless versions (BTA/BTB...W and T25 series) are specially recommended for use on inductive loads, thanks to their high commutation performances.

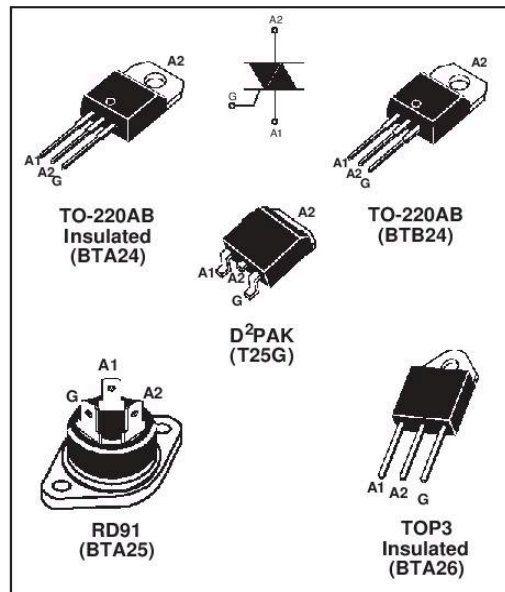
By using an internal ceramic pad, the BTA series provides voltage insulated tab (rated at 2500V RMS) complying with UL standards (File ref.: E81734).

**ABSOLUTE MAXIMUM RATINGS**

Symbol	Parameter		Value	Unit	
$I_{T(RMS)}$	RMS on-state current (full sine wave)	D PAK TO-220AB	$T_c = 100^\circ\text{C}$	25	A
		RD91 TOP3 Ins.	$T_c = 90^\circ\text{C}$		
		TO-220AB Ins.	$T_c = 75^\circ\text{C}$		
$I_{TSM}$	Non repetitive surge peak on-state current (full cycle, $T_j$ initial = $25^\circ\text{C}$ )	F = 60 Hz	t = 16.7 ms	260	A
		F = 50 Hz	t = 20 ms	250	
$I_t$	$I_t$ Value for fusing	tp = 10 ms		450	A s
$di/dt$	Critical rate of rise of on-state current $I_G = 2 \times I_{GT}$ , $t_r \leq 100$ ns	F = 120 Hz	$T_j = 125^\circ\text{C}$	50	A/ $\mu\text{s}$
$V_{DSM}/V_{RSM}$	Non repetitive surge peak off-state voltage	tp = 10 ms	$T_j = 25^\circ\text{C}$	$V_{DRM}/V_{RRM} + 100$	V
$I_{GM}$	Peak gate current	tp = 20 $\mu\text{s}$	$T_j = 125^\circ\text{C}$	4	A
$P_{G(AV)}$	Average gate power dissipation	$T_j = 125^\circ\text{C}$		1	W
$T_{stg}$ $T_j$	Storage junction temperature range			- 40 to + 150	$^\circ\text{C}$
	Operating junction temperature range			- 40 to + 125	

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**BTA/BTB24, BTA25, BTA26 and T25 Series**

**ELECTRICAL CHARACTERISTICS** ( $T_j = 25^\circ\text{C}$ , unless otherwise specified)

■ **SNUBBERLESS™ (3 Quadrants) T25-G, BTA/BTB24...W, BTA25...W, BTA26...W**

Symbol	Test Conditions	Quadrant		T25	BTA/BTB		Unit
				T2535	CW	BW	
$I_{GT}$ (1)	$V_D = 12\text{ V}$ $R_L = 33\ \Omega$	I - II - III	MAX.	35	35	50	mA
$V_{GT}$			MAX.	1.3			V
$V_{GD}$	$V_D = V_{DRM}$ $R_L = 3.3\ \text{k}\Omega$ $T_j = 125^\circ\text{C}$	I - II - III	MIN.	0.2			V
$I_H$ (2)	$I_T = 500\ \text{mA}$		MAX.	50	50	75	mA
$I_L$	$I_G = 1.2\ I_{GT}$	I - III	MAX.	70	70	80	mA
		II		80	80	100	
$dV/dt$ (2)	$V_D = 67\ \% V_{DRM}$ gate open $T_j = 125^\circ\text{C}$		MIN.	500	500	1000	V/ $\mu\text{s}$
$(dI/dt)_c$ (2)	Without snubber $T_j = 125^\circ\text{C}$		MIN.	13	13	22	A/ms

■ **STANDARD (4 Quadrants): BTA25...B, BTA26...B**

Symbol	Test Conditions	Quadrant		Value	Unit
$I_{GT}$ (1)	$V_D = 12\text{ V}$ $R_L = 33\ \Omega$	I - II - III IV	MAX.	50 100	mA
$V_{GT}$			ALL	MAX.	1.3
$V_{GD}$	$V_D = V_{DRM}$ $R_L = 3.3\ \text{k}\Omega$ $T_j = 125^\circ\text{C}$	ALL	MIN.	0.2	V
$I_H$ (2)	$I_T = 500\ \text{mA}$		MAX.	80	mA
$I_L$	$I_G = 1.2\ I_{GT}$	I - III - IV	MAX.	70	mA
		II		160	
$dV/dt$ (2)	$V_D = 67\ \% V_{DRM}$ gate open $T_j = 125^\circ\text{C}$		MIN.	500	V/ $\mu\text{s}$
$(dV/dt)_c$ (2)	$(dI/dt)_c = 13.3\ \text{A/ms}$ $T_j = 125^\circ\text{C}$		MIN.	10	V/ $\mu\text{s}$

**STATIC CHARACTERISTICS**

Symbol	Test Conditions		Value	Unit	
$V_{TM}$ (2)	$I_{TM} = 35\ \text{A}$ $t_p = 380\ \mu\text{s}$	$T_j = 25^\circ\text{C}$	MAX.	1.55	V
$V_{to}$ (2)	Threshold voltage	$T_j = 125^\circ\text{C}$	MAX.	0.85	V
$R_d$ (2)	Dynamic resistance	$T_j = 125^\circ\text{C}$	MAX.	16	$\text{m}\Omega$
$I_{DRM}$ $I_{RRM}$	$V_{DRM} = V_{RRM}$	$T_j = 25^\circ\text{C}$	MAX.	5	$\mu\text{A}$
		$T_j = 125^\circ\text{C}$		3	mA

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

**Note 2:** for both polarities of A2 referenced to A1

