

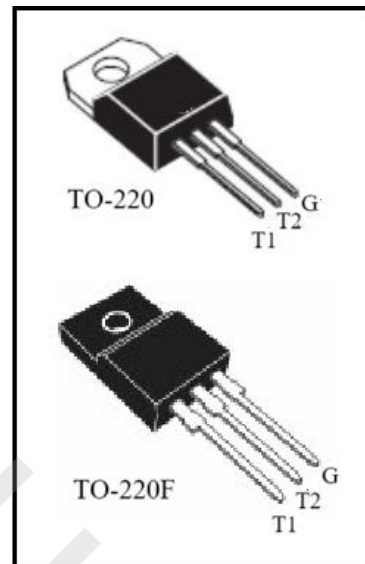
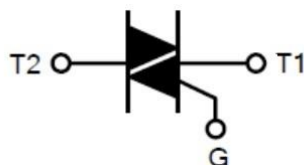
FEATURES

- Glass Passivated Junctions
- High voltage and surge capability
- Low Thermal Resistance and Durability
- Low thermal resistance insulation ceramic
- Insulating Voltage 2500V(RMS)

APPLICATIONS

- Mains power AC switching
- Static relays
- Light dimmers
- Heater Control
- Motor Speed Controller

SYMBOL:



ABSOLUTE MAXIMUM RATINGS

PARAMETER	SYMBOL		VALUE		UNIT
Repetitive Peak Off-State Voltages	$V_{DRM},$ V_{RRM}	4Q	BTA24-600B	600	V
			BTA24-800B	800	
		3Q	BTA24-600(CW/BW)	600	
			BTA24-800(CW/BW)	800	
RMS on-State Current	$I_{T(RMS)}$		25		A
Non-Repetitive Peak On-State Current	I_{TSM}		250		A
I^2t for fusing	I^2t		340		A ² s
Repetitive rate of rise of on-state current after triggering	di/dt		50		A/uS
Peak gate current	I_{GM}		4		A
Peak Gate Power	P_{GM}		5		W
Average Gate Power	$P_{G(AV)}$		1		W
Operating junction temperature	T_J		-40~+125		℃
Storage Temperature	T_{STG}		-40 ~ +150		℃

TRIAC

BTA24

ELECTRICAL CHARACTERISTICS (T_J=25°C) (4Q) Standard

Parameter	Symbol	Test Conditions			Value	Units
Peak Repetitive Forward or Reverse Blocking Current	I_{DRM} I_{RRM}	$V_{\text{AK}} = \text{Rated } V_{\text{DRM}} \text{ or } V_{\text{RRM}};$		MAX	5	uA
Gate Trigger Current	I_{GT}	$V_{\text{D}}=12\text{V}, \quad R_{\text{L}}=33\Omega$	I-II-III	MAX	50	mA
			IV	MAX	100	
Gate Trigger Voltage	V_{GT}	$V_{\text{D}}=12\text{V}, R_{\text{L}} = 33 \, \Omega$		MAX	1.3	V
Gate Non-Trigger Voltage	V_{GD}	$V_{\text{D}} = V_{\text{DRM}}, R_{\text{L}} = 3.3 \, \text{k}\Omega,$ $T_{\text{J}} = 125 \, ^\circ\text{C}$		MIN	0.2	V
Peak Forward On-State Voltage	V_{TM}	$I_{\text{T}}=35\text{A},$		MAX	1.55	V
Latch Current	I_{L}	$I_{\text{G}} = 1.2 \, I_{\text{GT}}$	I-III-IV	MAX	80	mA
			II	MAX	160	
Holding Current	I_{H}	$I_{\text{T}}=0.5\text{A}$		MAX	70	mA
Critical Rate of Rise of Off-State Voltage	dV/dt	$V_{\text{D}}=67\%V_{\text{DRM}}, T_{\text{J}}=25^\circ\text{C},$ Gate open		MIN	500	V/μs

ELECTRICAL CHARACTERISTICS (T_J=25°C)

(3Q) Triggering in three quadran

Parameter	Symbol	Test Conditions	MIN	MAX		Units
				CW	BW	
Peak Repetitive Forward or Reverse Blocking Current	I _{DRM} I _{RRM}	V _{AK} = Rated V _{DRM} or V _{RRM} ;		5		uA
Gate Trigger Current	I _{GT}	V _D =12V, R _L =33Ω	I-II-III	35	50	mA
Gate Trigger Voltage	V _{GT}	V _D =12V, R _L = 33 kΩ		1.3		V
Gate Non-Trigger Voltage	V _{GD}	V _D = V _{DRM} , R _L = 3.3 kΩ, T _j = 125 °C	0.2			V
Peak Forward On-State Voltage	V _{TM}	I _T =35A,		1.55		V
Latch Current	I _L	I _G = 1.2 I _{GT}	I-III	70	90	mA
			II	80	100	
Holding Current	I _H	I _T =0.5A		60	80	mA
Critical Rate of Rise of Off-State Voltage	dV/dt	V _D =67%V _{DRM} , T _J =25°C, Gate open	500			V/μs