



4Q Triac

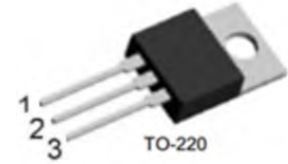
BTB06(F)-600T

Features

- * Very Low IGT=5mA max
- * Low IH=15mA max

Description

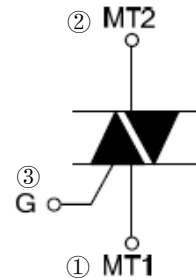
Triacs is fabricated using separation diffusion processes, the junction termination areas are passivated with glass. This devices are suitable for general purpose applications where gate high sensitivity is required. Application on 4Q such as phase control and static switching.



Ordering Information

Part No.	Package	Packing
BTB06-600T	TO-220	50pcs / Tube
BTB06F-600T	ITO-220	50pcs / Tube

Symbol



ABSOLUTE MAXIMUM RATING

PARAMETER	SYMBOL	RATINGS		UNIT
Repetitive Peak Off State Voltage	BT06(F)-600T	VDRM	600	V
RMS On-state Current (Full sine wave; $T_{mb} \leq 107^\circ\text{C}$)		$I_T(\text{RMS})$	6	A
Non-Repetitive Peak On-State Current (Full sine wave; $T_j = 25^\circ\text{C}$ prior to surge)		I_{TSM}	63 60	A
I^2t For Fusing		I^2t	18	A^2s
Rate of Rise of On-state Current Gate supply; $I_G = 50\text{mA}$, $dI_G/dt = 0.2\text{A}/\mu\text{s}$		dI_T/dt	Repetitive F=50Hz 10 Non Repetitive 50	$\text{A}/\mu\text{s}$
Peak Gate Current		I_{GM}	4	A
Peak Gate Power		P_{GM}	10	W
Average Gate Power (Over any 20ms period)		$P_{G(AV)}$	1	W
Operating Junction Temperature		T_j	110	$^\circ\text{C}$
Storage Temperature		T_{stg}	-40~150	$^\circ\text{C}$



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THERMAL CHARACTERISTICS

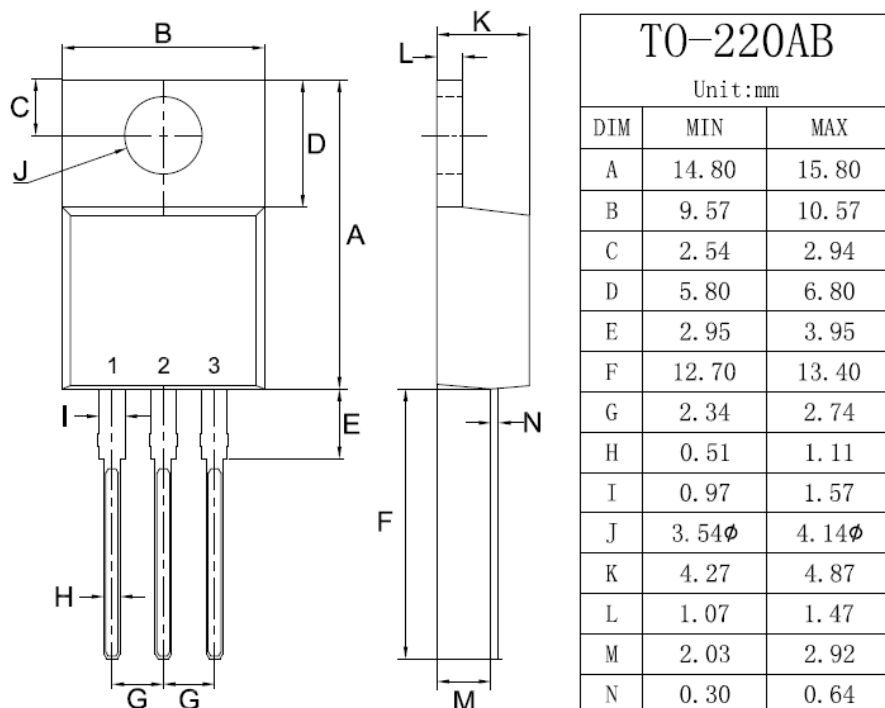
PARAMETER	SYMBOL	MIN	TYP	MAX	UNIT
Thermal Resistance Junction to case for DC	Rth j-c			3.2	C/W
Thermal Resistance Junction to Ambient In free air	Rth j-a		60		C/W

ELECTRICAL CHARACTERISTICS ($T_J = 25^\circ\text{C}$, unless otherwise stated)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
STATIC CHARACTERISTICS						
Gate Trigger Current	IGT	$V_D=12\text{V}$, $R_L=33\Omega$ I II III IV			5 5 5 5	mA
Latching Current	IL	$V_D=12\text{V}$, $R_L=33\Omega$ I II III IV		10 20 10 10		mA
Holding Current	IH	$V_D=12\text{V}$, $I_T=100\text{mA}$			15	mA
Gate Trigger Voltage	VGT	$V_D=12\text{V}$, $R_L=33\Omega$; $T_J=25^\circ\text{C}$; I, II, III, IV			1.5	V
On-State Voltage	VT	$I_T=8.5\text{A}$			1.65	V
I_{DRM} I_{RRM}	I_{DRM} I_{RRM}	V_{DRM} Rated / V_{RRM} Rated; $T_J=25^\circ\text{C}$ V_{DRM} Rated / V_{RRM} Rated; $T_J=110^\circ\text{C}$			0.01 0.75	mA

DYNAMIC CHARACTERISTICS

Critical Rate of Rise of off-state Voltage	dv/dt	$V_{\text{DM}}=67\% V_{\text{DRM(max)}}$, $T_J=110^\circ\text{C}$ Exponential waveform, Gate open circuit		50		V/ μs
Gate Controlled Turn-on Time	tgt	$V_D=V_{\text{DRM}}$, $R_L=33\Omega$		2		μs

**TO-220 Mechanical Drawing****ITO-220 Mechanical Drawing**