



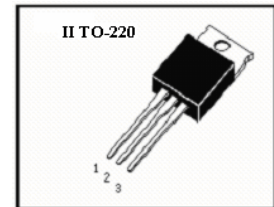
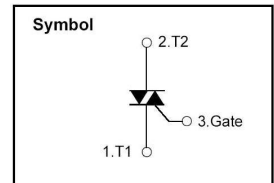
INNER INSULATED TYPE TRIAC (II TO-220 PACKAGE)

Features

- * Repetitive Peak Off-State Voltage: 600V
- * R.M.S On-state Current($I_{T(RMS)}=16A$)
- * High Commutation dv/dt
- * Isolation Voltage ($V_{ISO}=2500V$ AC)

General Description

The Triac HBTA16A60 is suitable for AC switching application, phase control application such as heater control, motor control, lighting control, and static switching relay.



Absolute Maximum Ratings ($T_a=25$)

T_{stg}	Storage Temperature.....	-40~125
T_j	Operating Junction Temperature	-40~125
P_{GM}	Peak Gate Power Dissipation.....	5W
V_{DRM}	Repetitive Peak Off-State Voltage.....	600V
I_T (RMS)	R.M.S On-State Current ($T_a=68$)	16A
V_{GM}	Peak Gate Voltage.....	10V
I_{GM}	Peak Gate Current.....	2.0A
I_{TSM}	Surge On-State Current (One Cycle, 50/60Hz, Peak, Non-Repetitive).....	155/170A
V_{ISO}	RMS Isolation Breakdown Voltage.....	2500V

Electrical Characteristics ($T_a=25$)

Symbol	Items	Min.	Max.	Unit	Conditions
I_{DRM}	Repetitive Peak Off-State Current		2.0	mA	$V_D=V_{DRM}$, Single Phase, Half Wave, $T_J=125$
V_{TM}	Peak On-State Voltage		1.4	V	$I_T=25A$, Inst. Measurement
I_{+GT1}	Gate Trigger Current ()		30	mA	$V_D=6V$, $R_L=10$ ohm
I_{-GT1}	Gate Trigger Current ()		30	mA	$V_D=6V$, $R_L=10$ ohm
I_{-GT3}	Gate Trigger Current ()		30	mA	$V_D=6V$, $R_L=10$ ohm
V_{+GT1}	Gate Trigger Voltage ()		1.5	V	$V_D=6V$, $R_L=10$ ohm
V_{-GT1}	Gate Trigger Voltage ()		1.5	V	$V_D=6V$, $R_L=10$ ohm
V_{-GT3}	Gate Trigger Voltage ()		1.5	V	$V_D=6V$, $R_L=10$ ohm
V_{GD}	Non-Trigger Gate Voltage	0.2		V	$T_J=125$, $V_D=1/2V_{DRM}$
$(dv/dt)_c$	Critical Rate of Rise of Off-State Voltage at Commutation	10		$V/\mu S$	$T_J=125$, $V_D=2/3V_{DRM}$ $(di/dt)_c=-8.0A/ms$
$R_{th(j-c)}$	Thermal Resistance		3.0	/W	Junction to case
I_H	Holding Current		25	mA	



Performance Curves

Fig 1. Gate Characteristics

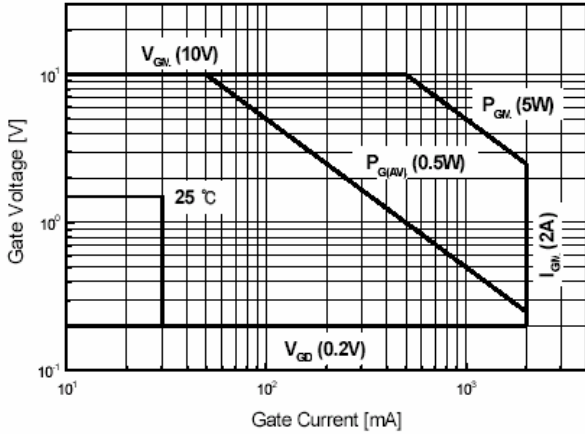


Fig 2. On-State Voltage

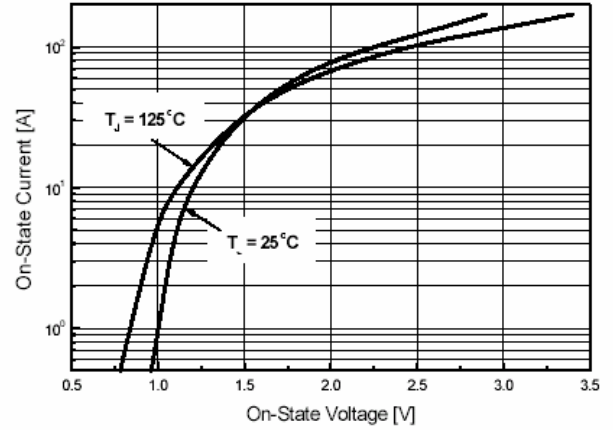


Fig 3. On State Current vs. Maximum Power Dissipation

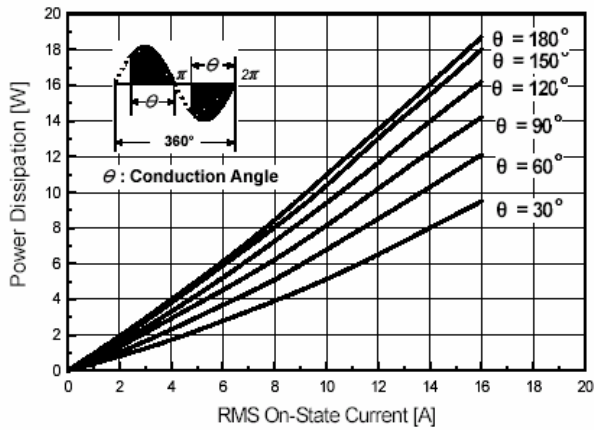


Fig 4. On State Current vs. Allowable Case Temperature

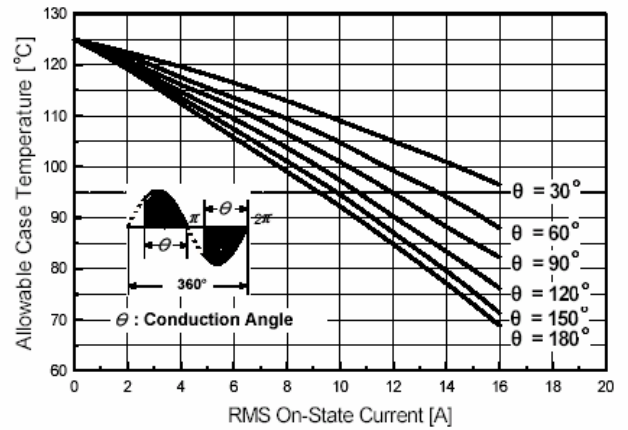


Fig 5. Surge On-State Current Rating (Non-Repetitive)

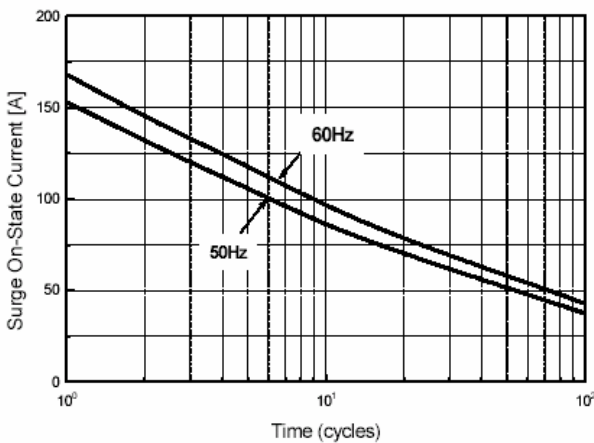


Fig 6. Gate Trigger Voltage vs. Junction Temperature

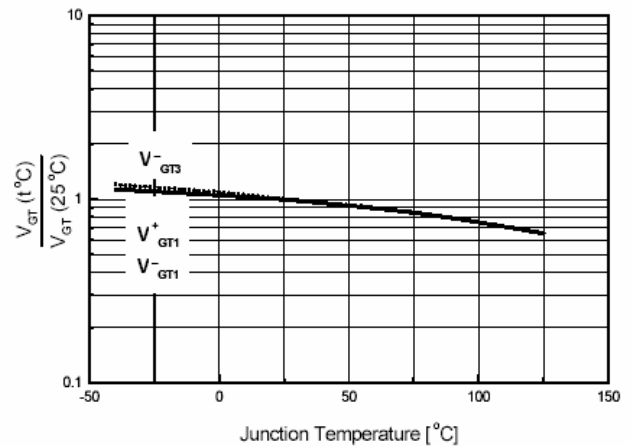




Fig 7. Gate Trigger Current vs. Junction Temperature

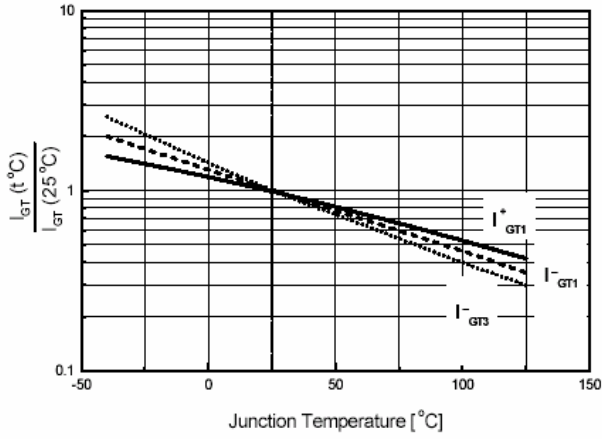


Fig 8. Transient Thermal Impedance

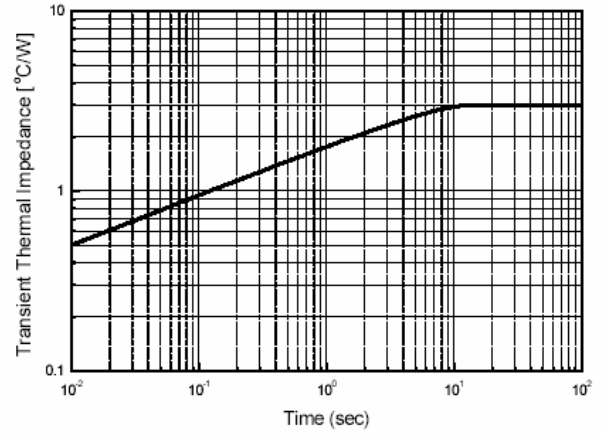


Fig 9. Gate Trigger Characteristics Test Circuit

