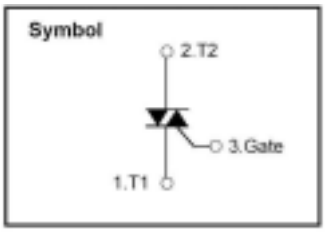
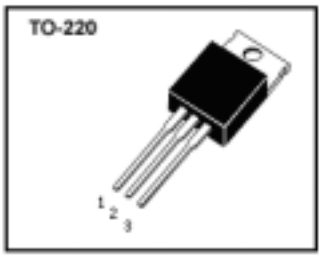
Shantou Huashan Electronic Devices Co.,Ltd.

HTP6A60

NON INSULATED TYPE TRIAC (TO-220 PACKAGE)





Features

*** Repetitive Peak Off-State Voltage: 600V**

*** R.M.S On-state Current($I_{T(RMS)}$=6A)**

*** High Commutation dv/dt**

General Description

The Triac HTP6A60 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…… 3W

V_{DRM}——Repetitive Peak Off-State Voltage…… 600V

I_T（RMS）——R.M.S On-state Current（Ta=100℃）…… 6A

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)…… 60/66A

Electrical Characteristics (T_a=25℃)

Symbol	Items	Min.	Typ.	Max.	Unit	Conditions
I_{DRM}	Repetitive Peak Off-State Current			1.0	mA	V_D=V_{DRM},Single Phase,Half Wave, T_J=125℃
V_{TM}	Peak On-State Voltage			1.5	V	I_T=8A, Inst. Measurement
$I+_{GT1}$	Gate Trigger Current（Ⅰ）			20	mA	V_D=6V, R_L=10 ohm
$I-_{GT1}$	Gate Trigger Current（Ⅱ）			20	mA	V_D=6V, R_L=10 ohm
$I-_{GT3}$	Gate Trigger Current（Ⅲ）			20	mA	V_D=6V, R_L=10 ohm
$V+_{GT1}$	Gate Trigger Voltage（Ⅰ）			1.5	V	V_D=6V, R_L=10 ohm
$V-_{GT1}$	Gate Trigger Voltage（Ⅱ）			1.5	V	V_D=6V, R_L=10 ohm
$V-_{GT3}$	Gate Trigger Voltage（Ⅲ）			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	5.0			V/μS	T_J=125℃,V_D=2/3V_{DRM} (di/dt)c=-3A/ms
I_H	Holding Current		10		mA	
Rth(j-c)	Thermal Resistance			2.8	℃/W	Junction to case

PERFORMANCE CURVES

Fig 1. Gate Characteristics

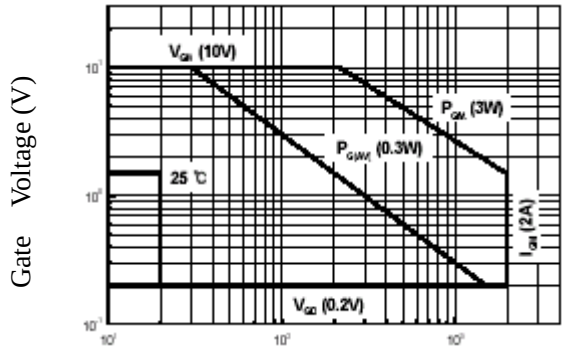


Fig 2. On-State Voltage

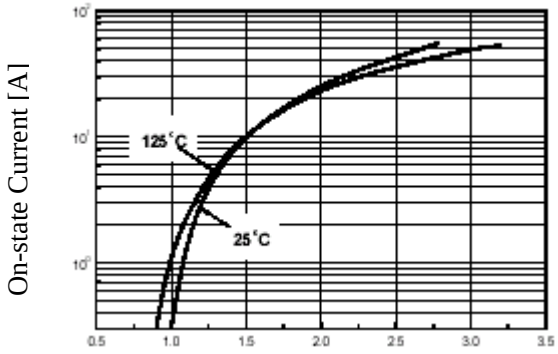


Fig 3. Gate Trigger Voltage vs. Junction Temperature

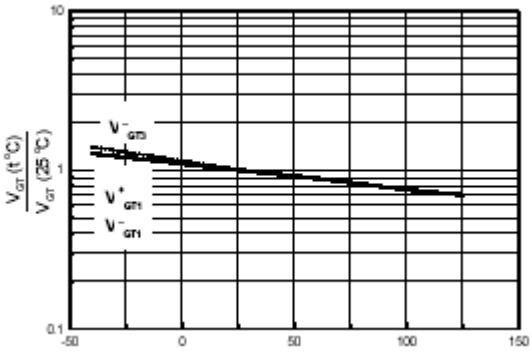


Fig 4. On State Current vs. Maximum Power Dissipation

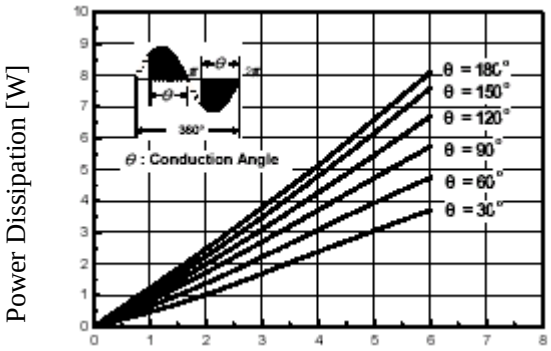


Fig 5. On State Current vs. Allowable Case Temperature

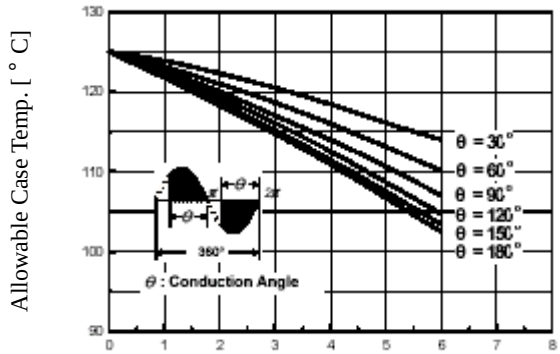


Fig 6. Surge On-State Current Rating (Non-Repetitive)

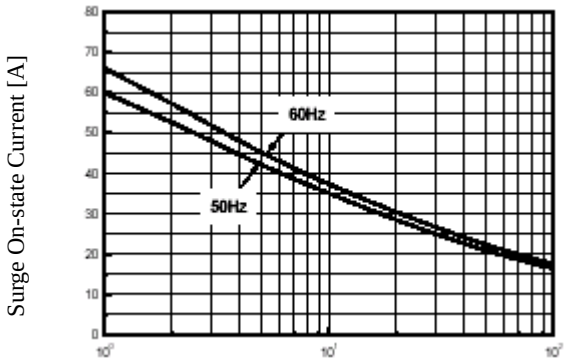
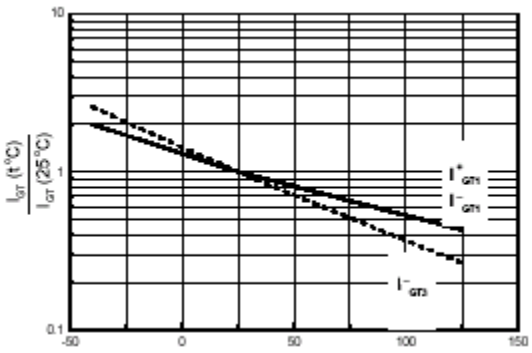


Fig 7. Gate Trigger Current vs. Junction Temperature



Junction Temperature [℃]

Fig 8. Transient Thermal Impedance

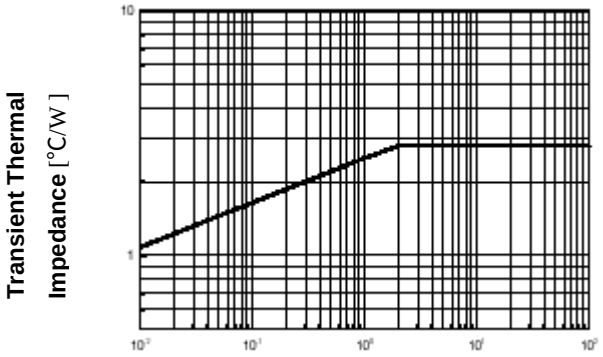
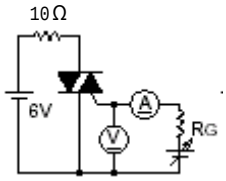
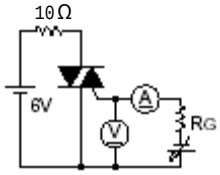


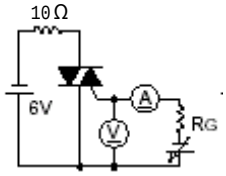
Fig 9. Gate Trigger Characteristics Test Circuit



Test Procedure Ⅰ



Test Procedure Ⅱ



Test ProcedureⅢ