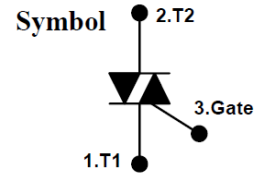


HTx8-600

600V 8A TRIAC

$$V_{\text{DRM}} = 600 \text{ V}$$

$$I_{\text{T(RMS)}} = 8.0 \text{ A}$$



FEATURES

- Repetitive Peak Off-State Voltage: 600V
- R.M.S On –State Current ($I_{\text{T(RMS)}} = 8\text{A}$)
- High Commutation dv/dt

1.T1 2. T2 3. Gate

TO-220



HTP8-600

TO-220F



HTS8-600

General Description

The TRIAC HTP8-600 is suitable for AC switching application, phase control application such as heater control, motor control, lighting control, and static switching relay.

Absolute Maximum Ratings $(T_a=25^\circ\text{C})$

Symbol	Parameter		Value	Units	
V_{DRM}	Repetitive Peak Off-State Voltage		600	V	
$I_{\text{T(RMS)}}$	R.M.S On-State Current ($T_a = 105^\circ\text{C}$)	HTP8-600	8	A	
	R.M.S On-State Current ($T_a = 89^\circ\text{C}$)	HTS8-600			
I_{TSM}	Surge On-State Current (One Cycle, 50/60Hz, Peak, Non Repetitive)		50Hz	80	A
			60Hz	88	A
V_{GM}	Peak Gate Voltage		10	V	
I_{GM}	Peak Gate Current		2	A	
P_{GM}	Peak Gate Power Dissipation		5	W	
V_{ISO}	Isolation Breakdown Boltate, AC RMS 1Min (HTS8-600 only)		1500	V	
T_{STG}	Storage Temperature Range		-40 to +125	$^\circ\text{C}$	
T_{J}	Operating Temperature		-40 to +125	$^\circ\text{C}$	

Electrical Characteristics (T_a=25°C)

Symbol	Parameter	Test Conditions	Min	Typ	Max	Units
I _{GT}	Gate Trigger Current	V _D =6V, R _L =10Ω	1+, 1-, 3-		30	mA
V _{GT}	Gate Trigger Voltage	V _D =6V, R _L =10Ω	1+, 1-, 3-		1.5	V
V _{GD}	Non Trigger Gate Voltage	T _J 125°C, V _D =1/2V _{DRM}		0.2		V
(dv/dt) _c	Critical Rate of Rise of Off-State Voltage at Communication	T _J =125°C, V _D =2/3V _{DRM} (di/dt) _c =4A/ms		5.0		V/uS
I _H	Holding Current			15		mA
I _{DRM}	Repetitive Peak Off-State Current	V _D =V _{DRM} , Single Phase Half Wave, T _J =125°C			2.0	mA
V _{TM}	Peak On-State Voltage	I _T =12A, Inst, Measurement			1.4	V

Thermal Characteristics

Symbol	Parameter	Test Conditions	Case	Min	Typ	Max	Units
R _{θJC}	Thermal Resistance	Junction to Case	HTP8-600			2	°C/W
			HTS8-600			3.7	°C/W

Typical Characteristics

Fig 1. Gate Characteristics

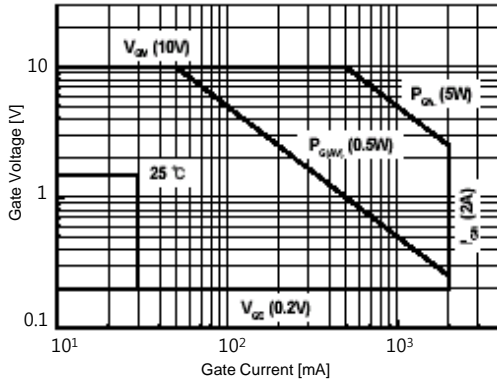


Fig 2. On-State Voltage

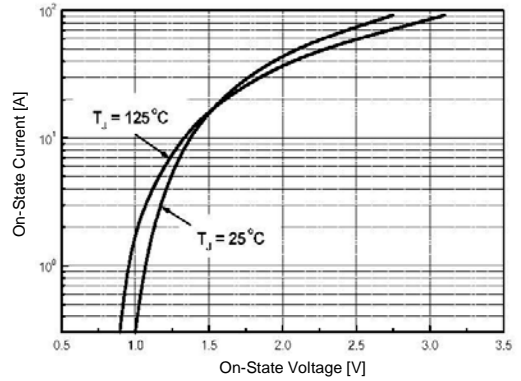


Fig 3. Gate Trigger Voltage vs. Junction Temperature

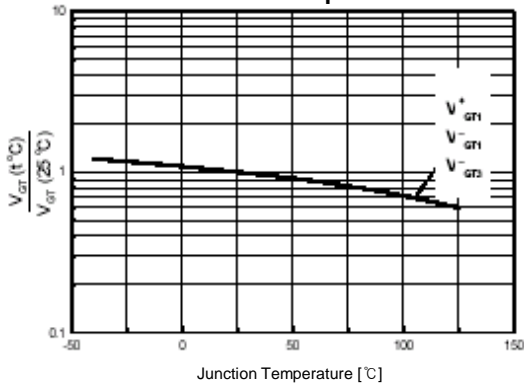


Fig 4. On-State Current vs. Maximum power Dissipation

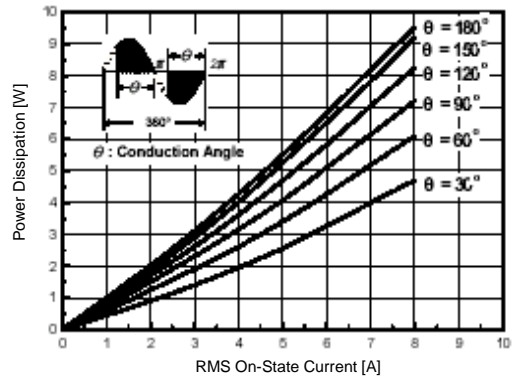


Fig 5. On-State Current vs. Allowable Case Temperature

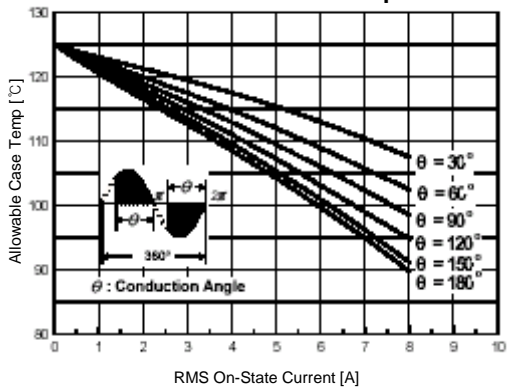
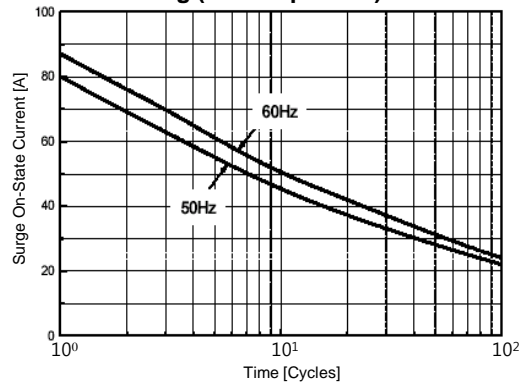


Fig 6. Surge On-State Current Rating (Non-Repetitive)



Typical Characteristics

Fig 7. Gate Trigger Current vs. Junction Temperature

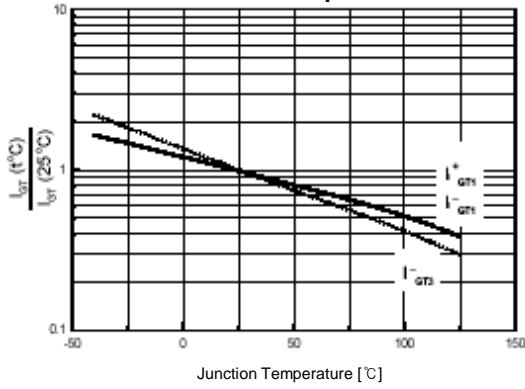


Fig 8. Transient Thermal Impedance

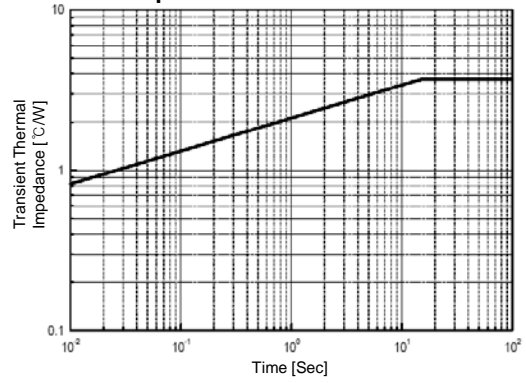
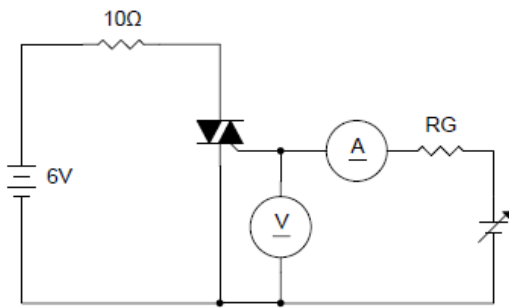
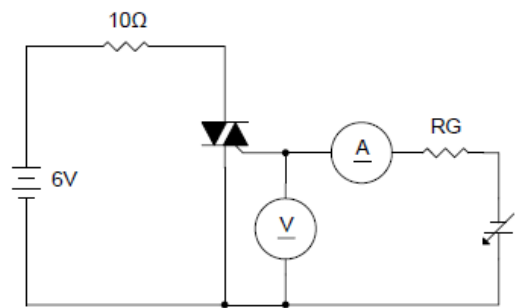


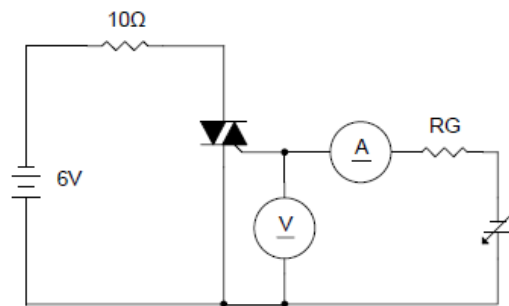
Fig 7. Gate Trigger Characteristics Test Circuit



Test Procedure I



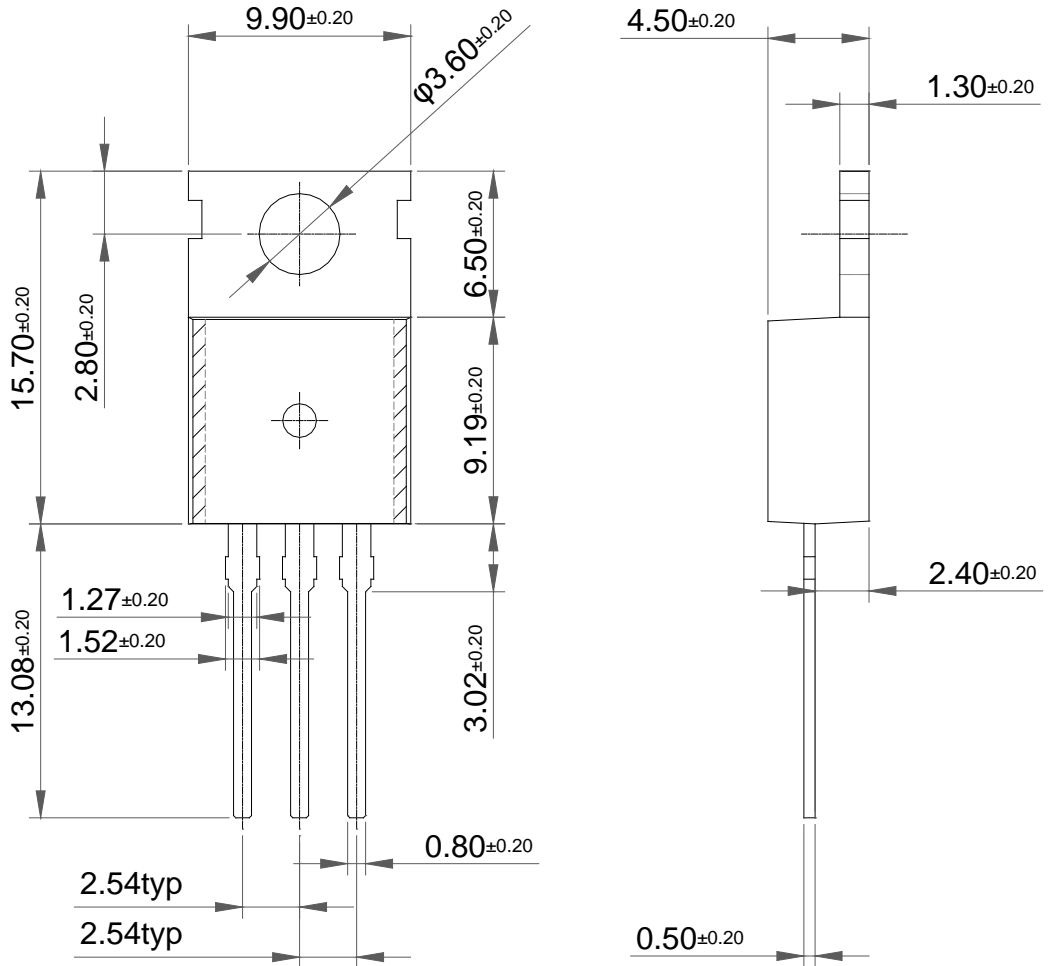
Test Procedure II



Test Procedure III

Package Dimension

HTP8-600
(TO-220)



Package Dimension

HTS8-600 (TO-220F)

