

Features

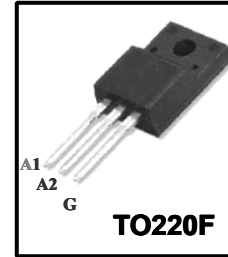
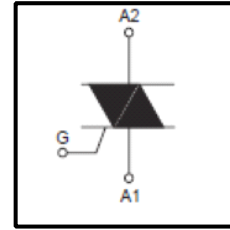
- Repetitive Peak off-State Voltage: 600V
- R.M.S On-State Current($I_{T(RMS)}$)=16A
- Isolation Voltage (VISO = 1500V AC)
- High Commutation dV/dt.
- High Junction temperature($T_J=150^{\circ}\text{C}$)

General Description

Winsemi Triac **STF16A60H** is designed for full wave AC control applications. It can be used as an ON/OFF function or for phase control operation.

Typical Application

- Home Appliances : Washing Machines, Vacuum Cleaners, Rice Cookers, Micro Wave Ovens, Hair Dryers, other control applications
- Industrial Use : SMPS, Copier Machines, Motor Controls, Dimmer, SSR, Heater Controls, Vending Machines, other control applications



Absolute Maximum Ratings ($T_J=25^{\circ}\text{C}$ unless otherwise specified)

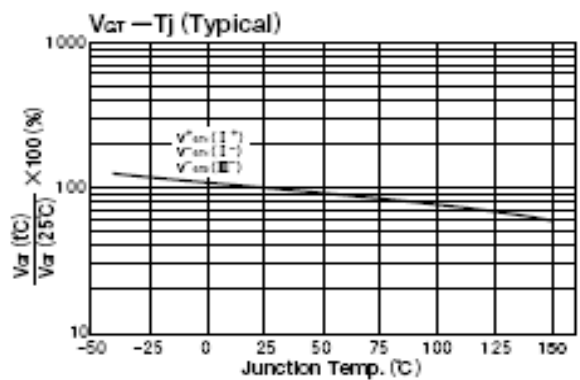
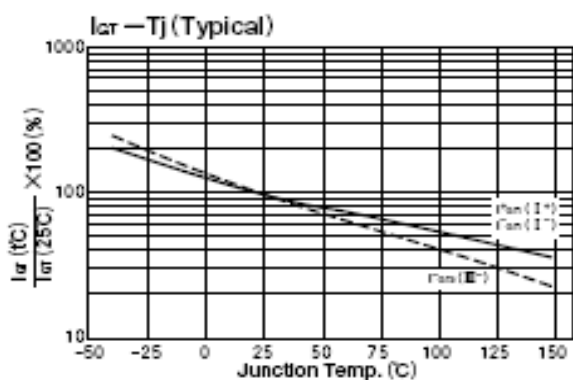
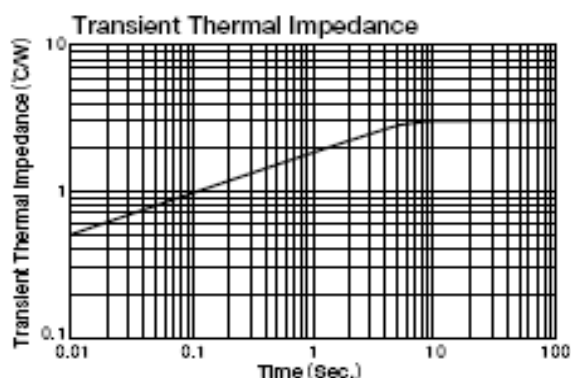
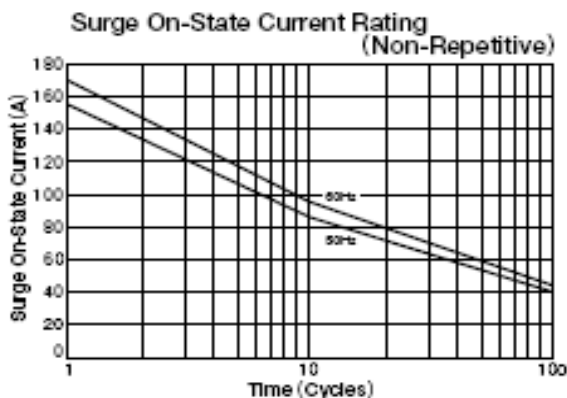
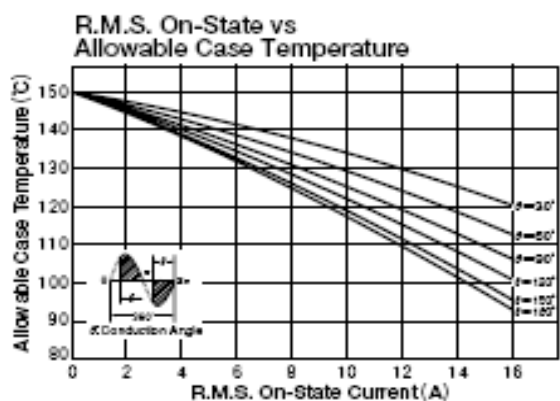
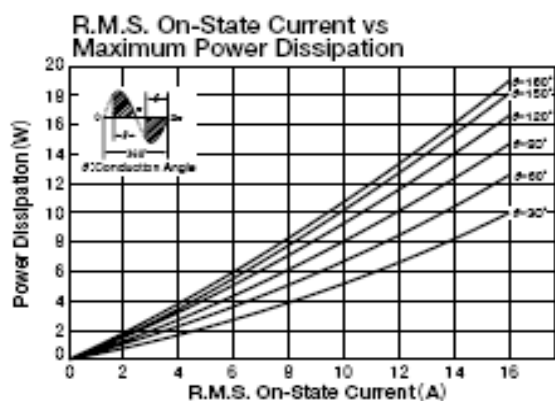
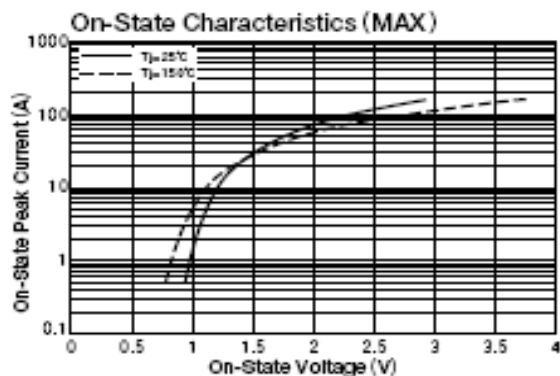
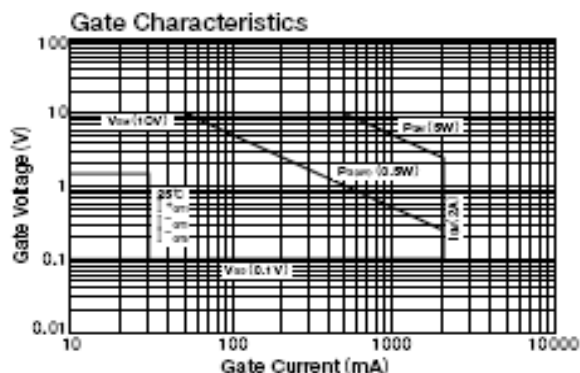
Symbol	Para	Condition	Ratings	Units
V_{DRM}/V_{RRM}	Repetitive Peak Off-State Voltage		600	V
$I_{T(RMS)}$	R.M.S On-State Current	$T_J = 1118^{\circ}\text{C}$	16	A
I_{TSM}	Surge On-State Current	50/60Hz, One cycle, Peak value, non-repetitive	155/170	A
I_t^2	I_t^2		120	A^2s
P_{GM}	Peak Gate Power Dissipation		5	W
$P_{G(AV)}$	Average Gate Power Dissipation		0.5	W
I_{GM}	Peak Gate Current		2.0	A
V_{GM}	Peak Gate Voltage		7.0	V
T_J	Operating Junction Temperature		-40~+150	$^{\circ}\text{C}$
T_{STG}	Storage Temperature		-40~+150	$^{\circ}\text{C}$

Thermal Characteristics

Symbol	Parameter	Value			Units
		Min	Typ	Max	
R_{QJC}	Thermal resistance, Junction-to-Case	-	-	3	$^{\circ}\text{C/W}$
R_{QJA}	Thermal resistance, Junction-to-Ambient	-	-	150	$^{\circ}\text{C/W}$

Electrical Characteristics ($T_J = 25^\circ\text{C}$, $R_{GK} = 1\text{ k}\Omega$ unless otherwise specified)

Symbol	Characteristics		Min	Typ.	Max	Unit
$I_{\text{DRM}}/I_{\text{RRM}}$	off-state leakage current ($V_{\text{AK}} = V_{\text{DRM}}/V_{\text{RRM}}$ Single phase, half wave)	$T_J = 150^\circ\text{C}$	-	-	3	mA
V_{TM}	Forward "On" voltage ($I_T = 25\text{A}$, Inst. Measurement)		-	1.2	1.4	V
I_{GT}	Gate trigger current (continuous dc) ($V_{\text{AK}} = 6\text{ Vdc}$, $R_L = 10\ \Omega$)	T2+,G+	-	-	30	mA
		T2+,G-	-	-	30	
		T2-,G-	-	-	30	
V_{GT}	Gate Trigger Voltage (Continuous dc)) ($V_{\text{AK}} = 6\text{ Vdc}$, $R_L = 10\ \Omega$)	T2+,G+	-	-	1.5	V
		T2+,G-	-	-	1.5	
		T2-,G-	-	-	1.5	
V_{GD}	Gate threshold Voltage $V_D = 1/2 V_{\text{DRM}}$	$T_J = 150^\circ\text{C}$	0.1	-	-	V
(dv/dt)C	Critical Rate of Rise of Off-State Voltage at Commutation ($V_D = 0.67 V_{\text{DRM}}$; (di/dt)c = -8A/ms)	$T_J = 150^\circ\text{C}$	5	-	-	V/ μs
I_{H}	Holding Current		-	25	-	mA
I_{L}	latching current		-	25	-	mA



TO-220F Package Dimension