

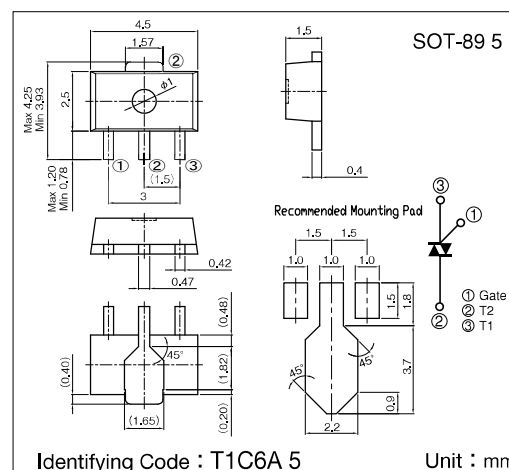
SanRex Triac **TMG1C60A 5** is designed for full wave AC control applications. It can be used as an ON/OFF function or for phase control operation.

Typical Applications

- 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

Features

- $I_{T(RMS)}=1A$
- High Surge Current



Maximum Ratings

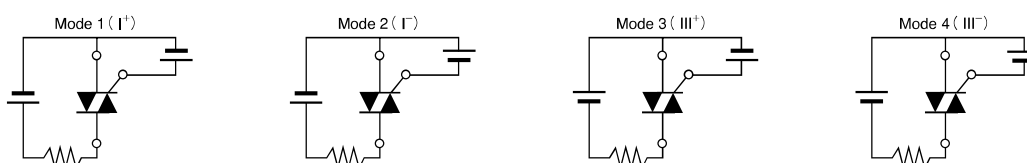
(Tj=25°C unless otherwise specified)

Symbol	Item	Reference	Ratings	Unit
V_{DRM}	Repetitive Peak Off-State Voltage		600	V
$I_{T(RMS)}$	R.M.S. On-State Current	Ta=38°C	1	A
I_{TSM}	Surge On-State Current	One cycle, 50Hz/60Hz, Peak value, non-repetitive	9.1/10	A
I^2t	I^2t (for fusing)		0.41	A ² s
P_{GM}	Peak Gate Power Dissipation		1	W
$P_{G(AV)}$	Average Gate Power Dissipation		0.1	W
I_{GM}	Peak Gate Current		0.5	A
V_{GM}	Peak Gate Voltage		6	V
T_j	Operating Junction Temperature		-40~+125	°C
T_{stg}	Storage Temperature		-40~+150	°C
	Mass		0.05	g

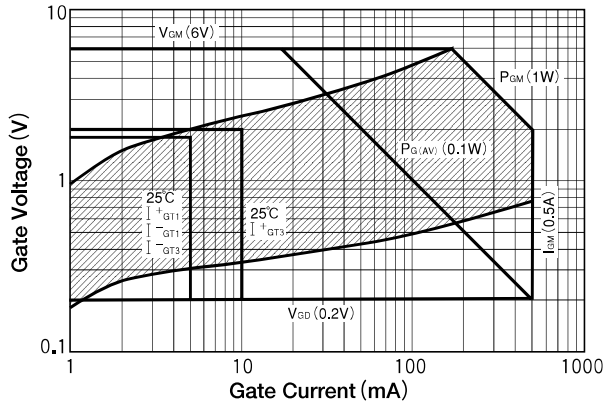
Electrical Characteristics

Symbol	Item		Reference	Ratings			Unit
				Min.	Typ.	Max.	
I _{DRM}	Repetitive Peak Off-State Current		V _D =V _{DRM} , Single phase, half wave, T _J =125°C			0.5	mA
V _{TM}	Peak On-State Voltage		I _T =1.5A, Inst. measurement			1.6	V
I _{GT1} ⁺	1	Gate Trigger Current	V _D =6V, R _L =10Ω			5	mA
I _{GT1} [−]	2					5	
I _{GT3} ⁺	3					10	
I _{GT3} [−]	4					5	
V _{GT1} ⁺	1	Gate Trigger Voltage				1.8	V
V _{GT1} [−]	2					1.8	
V _{GT3} ⁺	3					2.0	
V _{GT3} [−]	4					1.8	
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 Commutation		T _J =125°C, (di/dt) _c =−0.5A/ms, V _D =2/3V _{DRM}	2			V/μs
I _H	Holding Current				4		mA
R _{th} (j-a)	Thermal Resistance		Junction to ambient			65	°C/W

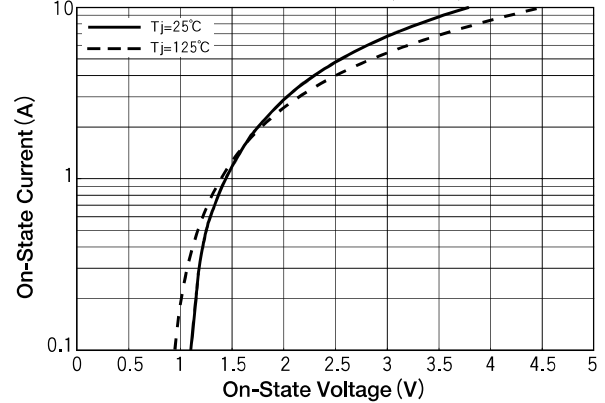
Trigger mode of the triac



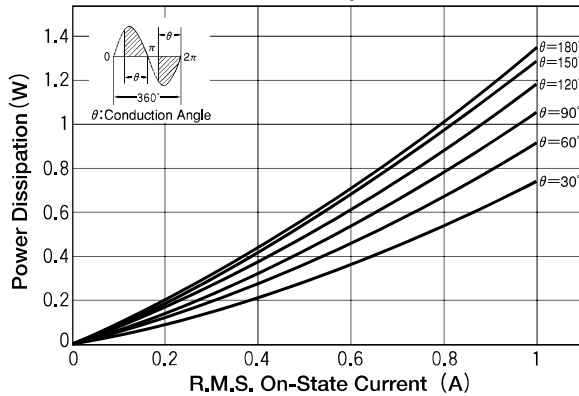
Gate Characteristics



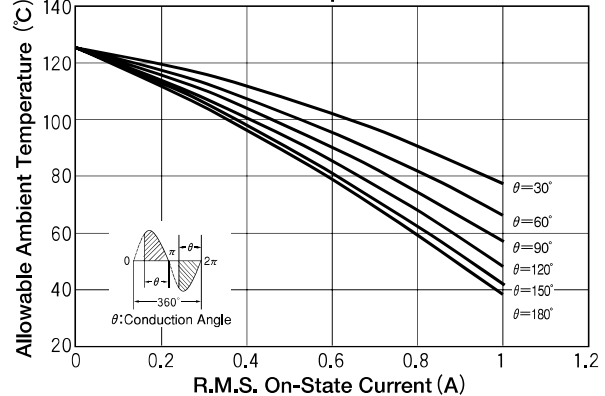
On-State Characteristics (MAX)



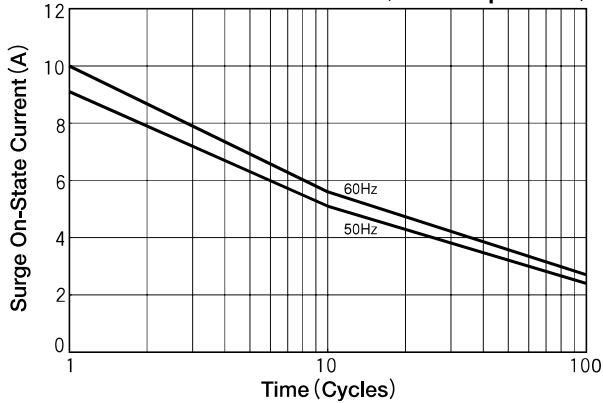
R.M.S. On-State Current vs Maximum Power Dissipation



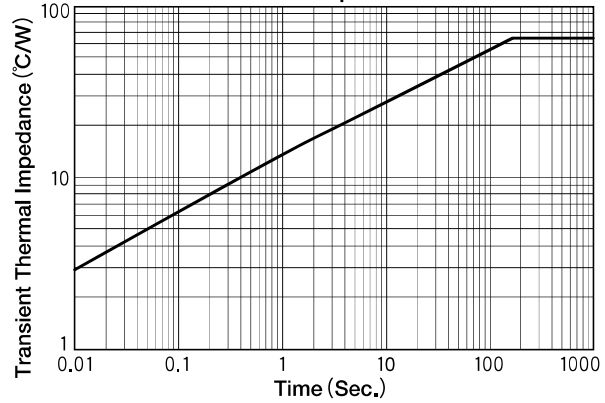
R.M.S. On-State Current vs Allowable Case Temperature



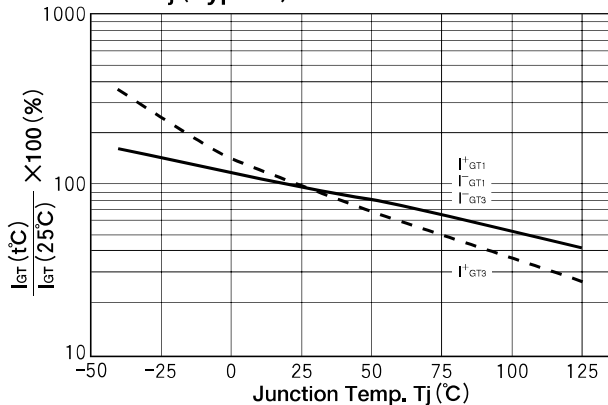
Surge On-State Current Rating (Non-Repetitive)



Transient Thermal Impedance



I_GT - T_J (Typical)



V_GT - T_J (Typical)

