

TRIAC(Through Hole/Isolated)

TMG2CQ60F

(Tj=150°C)

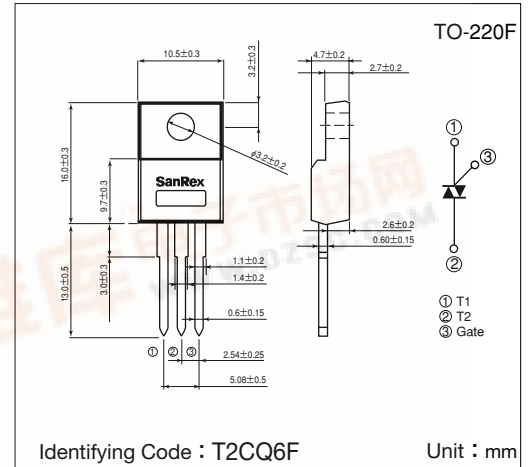
SanRex Triac **TMG2CQ60F** is designed for full wave AC control applications. It can be used as an ON/OFF function or for phase control operation.

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

- $I_{T(RMS)}=2A$
- High Surge Current
- Lead-Free Package



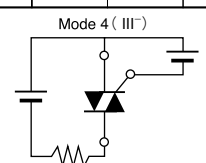
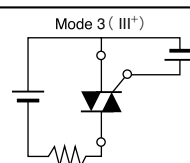
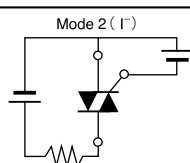
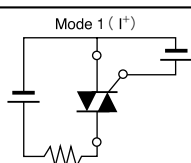
Maximum Ratings

(Tj=25°C unless otherwise specified)

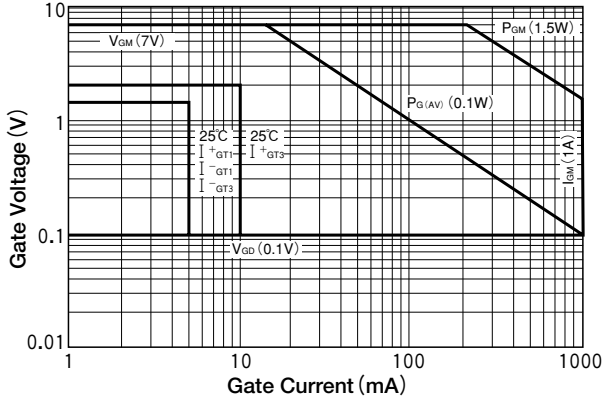
Symbol	Item	Reference	Ratings	Unit
V_{DRM}	Repetitive Peak Off-State Voltage		600	V
$I_{T(RMS)}$	R.M.S. On-State Current	$T_c=129^\circ C$	2	A
I_{TSM}	Surge On-State Current	One cycle, 50Hz/60Hz, Peak value non-repetitive	18/20	A
I^2t	I^2t (for fusing)		1.67	A ² S
P_{GM}	Peak Gate Power Dissipation		1.5	W
$P_{G(AV)}$	Average Gate Power Dissipation		0.1	W
I_{GM}	Peak Gate Current		1	A
V_{GM}	Peak Gate Voltage		7	V
V_{ISO}	Isolation Breakdown Voltage (R.M.S)	A.C.1minute	1500	V
T_j	Operating Junction Temperature		-40~+150	°C
T_{stg}	Storage Temperature		-40~+150	°C
	Mass		2	g

Electrical Characteristics

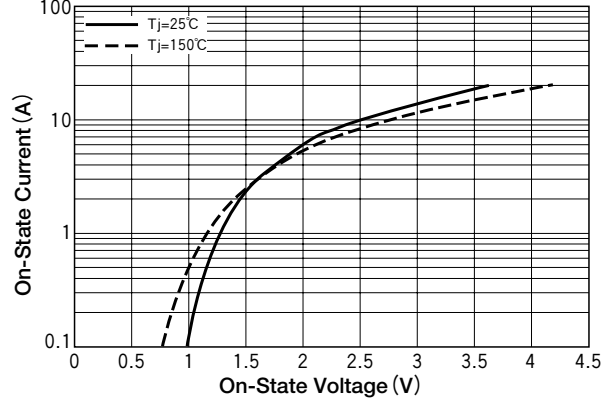
Symbol	Item		Reference	Ratings			Unit
				Min.	Typ.	Max.	
IDRM	Repetitive Peak Off-State Current		VD=VDRM, Single phase, half wave, Tj=150℃			1	mA
VTM	Peak On-State Voltage		It=3A, Inst. measurement			1.6	V
I _{GT1} ⁺	1	Gate Trigger Current	VD=6V, RL=10Ω			15	mA
I _{GT1} ⁻	2					15	
I _{GT3} ⁺	3					—	
I _{GT3} ⁻	4					15	
V _{GT1} ⁺	1	Gate Trigger Voltage				1.5	V
V _{GT1} ⁻	2					1.5	
V _{GT3} ⁺	3					—	
V _{GT3} ⁻	4					1.5	
VGD	Non-Trigger Gate Voltage		Tj=150℃, VD=½VDRM	0.1			V
[dv/dt]c	Critical Rate of Rise of Off-State Voltage at Commutation		Tj=150℃, [di/dt]c=—1A/ms, VD=⅔VDRM	1			V/μs
IH	Holding Current				2		mA
Rth(j-c)	Thermal Resistance		Junction to case			7.5	℃/W
Rth(j-a)			Junction to ambient			50	℃/W



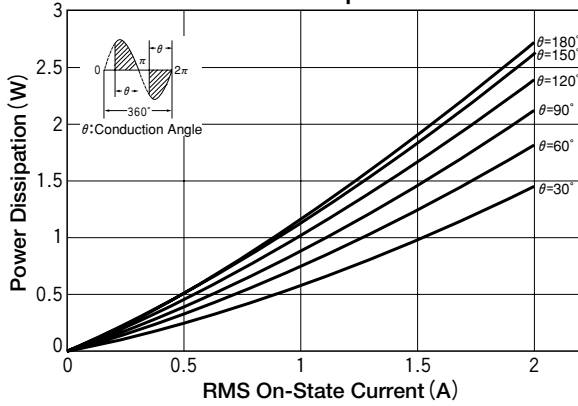
Gate Characteristics



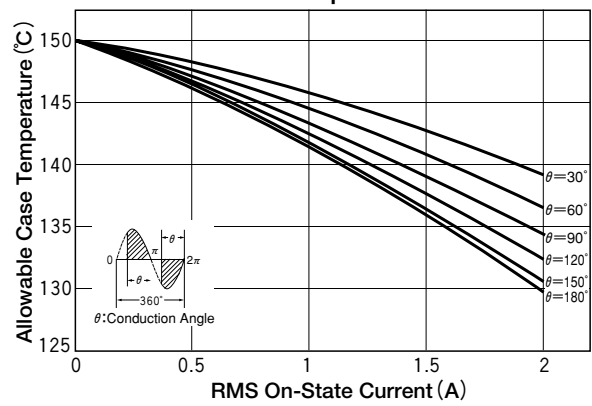
On-State Characteristics (MAX)



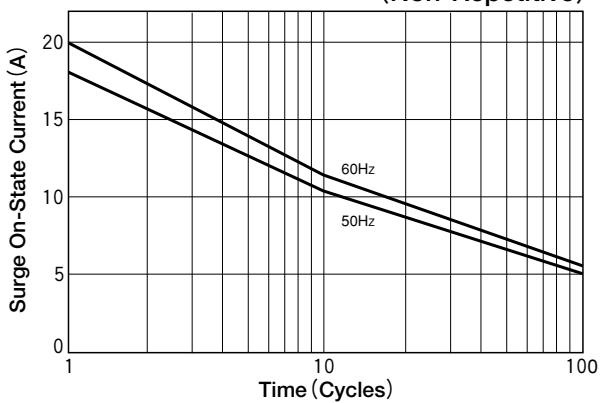
RMS On-State Current vs Maximum Power Dissipation



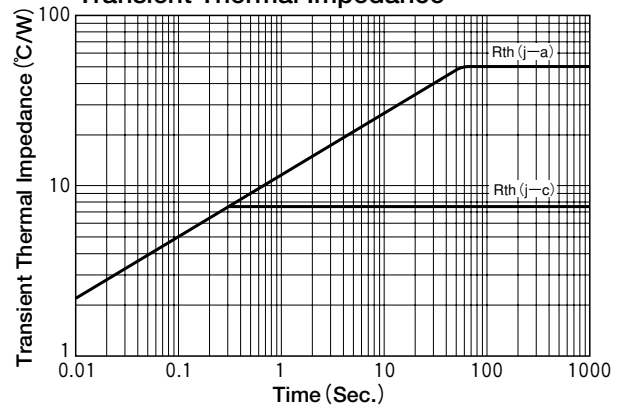
RMS On-State vs Allowable Case Temperature



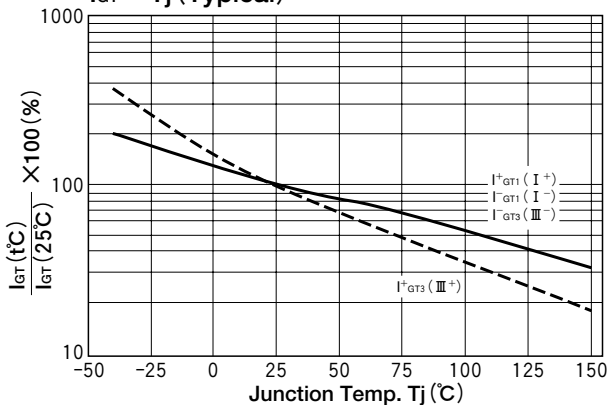
Surge On-State Current Rating (Non-Repetitive)



Transient Thermal Impedance



$I_{GT} - T_J$ (Typical)



$V_{GT} - T_J$ (Typical)

