

TRIAC(Through Hole / Isolated)

TMG2DQ60F

(Tj=150°C / Sensitive Gate)

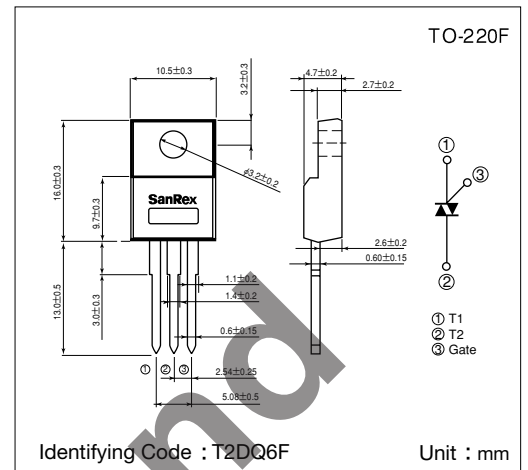
SanRex Triac TMG2DQ60F is designed for full wave AC control applications. It can be used as an ON/OFF function or for phase control operation.

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

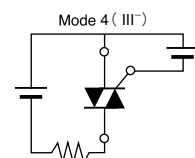
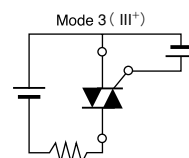
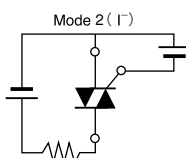
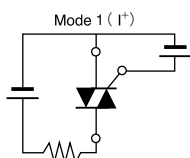
(Tj=25°C unless otherwise specified)

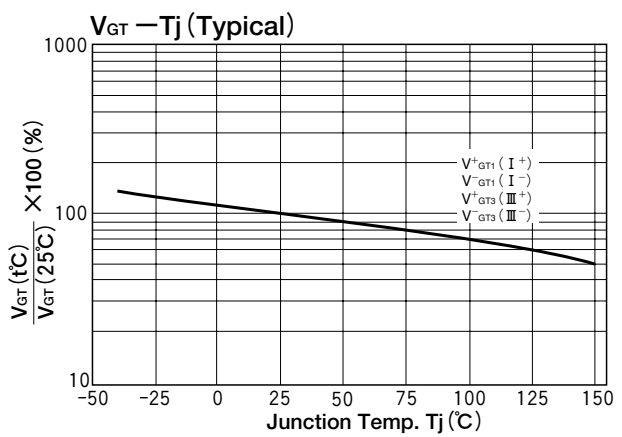
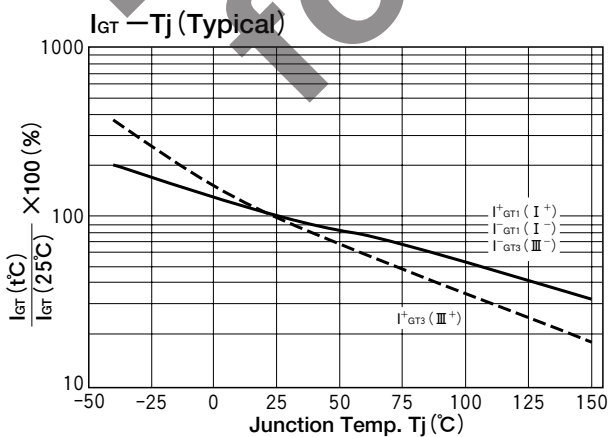
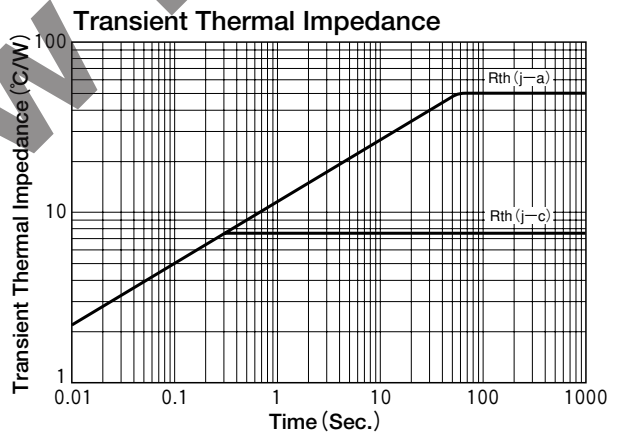
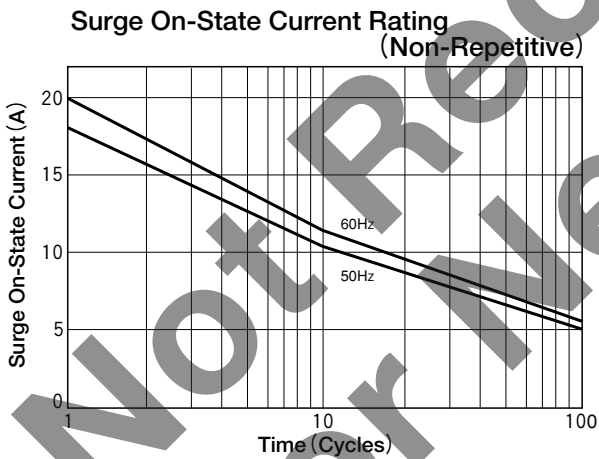
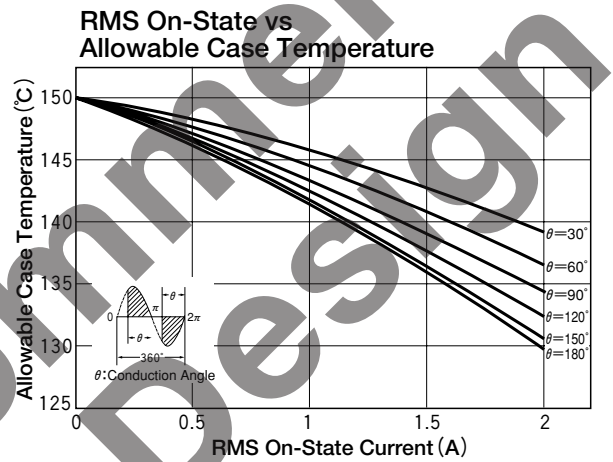
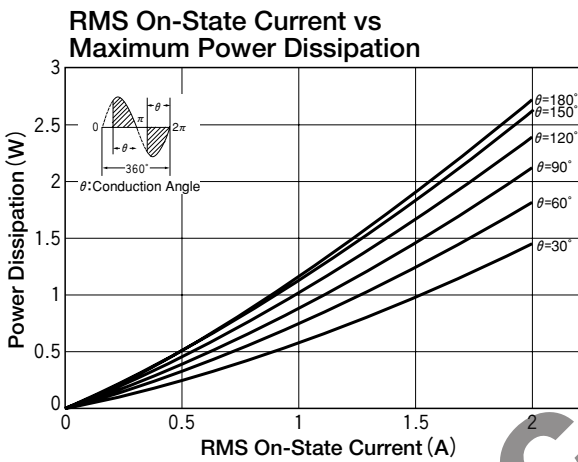
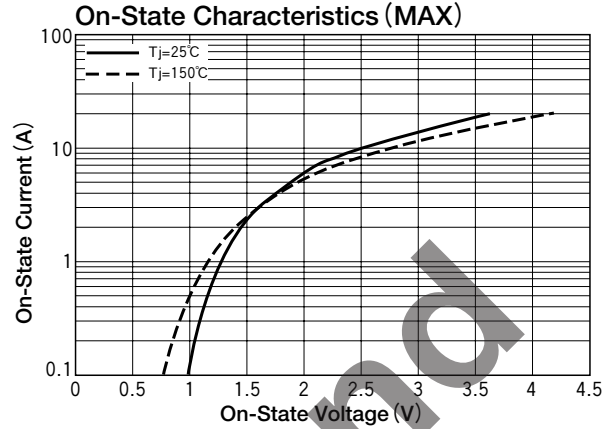
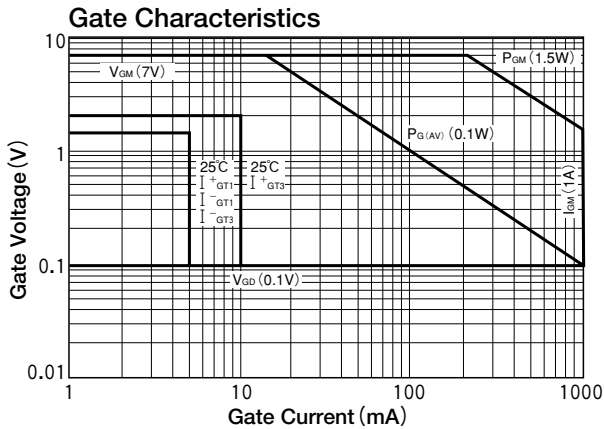
Symbol	Item	Reference	Ratings	Unit
V_{DRM}	Repetitive Peak Off-State Voltage		600	V
$I_{T(RMS)}$	R.M.S. On-State Current	$T_c=129^\circ C$	2	A
I_{TSM}	Surge On-State Current	One cycle, 50Hz/60Hz, Peak value non-repetitive	18/20	A
I^2t	I^2t (for fusing)		1.67	A ² S
PGM	Peak Gate Power Dissipation		1.5	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

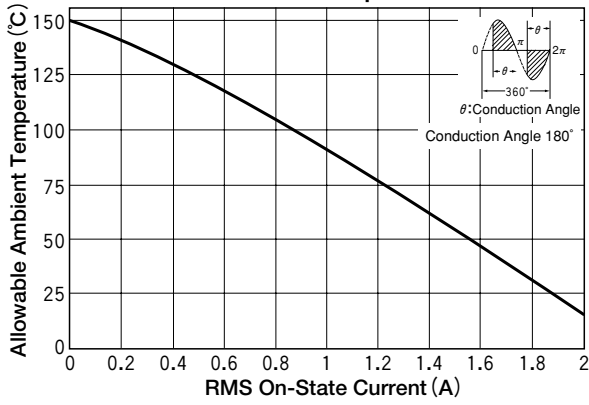
Symbol	Item	Reference	Ratings			Unit
			Min.	Typ.	Max.	
I_{DRM}	Repetitive Peak Off-State Current	$V_D=V_{DRM}$, Single phase, half wave, $T_j=150^\circ C$			1	mA
V_{TM}	Peak On-State Voltage	$I_T=3A$, Inst. measurement			1.6	V
I_{GT1}^+	Gate Trigger Current	$V_D=6V$, $R_L=10\ \Omega$			5	mA
I_{GT1}^-					5	
I_{GT3}^+					10	
I_{GT3}^-					5	
V_{GT1}^+	Gate Trigger Voltage				1.5	V
V_{GT1}^-					1.5	
V_{GT3}^+					2.0	
V_{GT3}^-					1.5	
V_{GD}	Non-Trigger Gate Voltage	$T_j=150^\circ C$, $V_D=1/2 V_{DRM}$	0.1			V
$(dv/dt)_c$	Critical Rate of Rise of Off-State Voltage at Commutation	$T_j=150^\circ C$, $(di/dt)_c=-1A/ms$, $V_D=2/3 V_{DRM}$	1			V/ μs
I_H	Holding Current			2		mA
$R_{th(j-c)}$	Thermal Resistance	Junction to case			7.5	°C/W
$R_{th(j-a)}$		Junction to ambient			50	

Trigger mode of the triac





RMS On-State vs Allowable Ambient Temperature



Not Recommended for New Design