

THYRISTOR(Surface Mount Device/Non-isolated)

SMG08C60A

(Sensitive Gate)

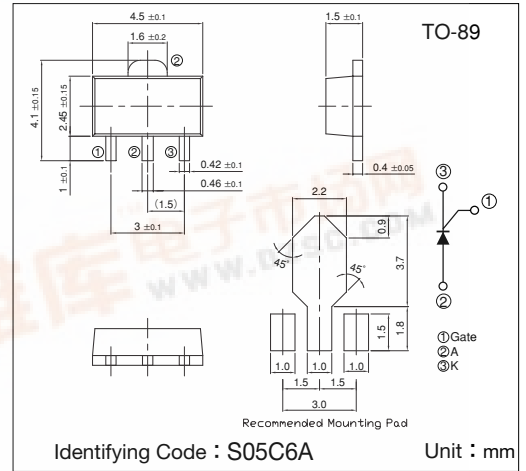
SanRex Thyristor SMG05C60A is designed for full wave AC control applications. It can be used as an ON/OFF function or for phase control operation.

Typical Applications

- Home Appliances : Electric Blankets, Starter for FL, other control applications
- Industrial Use : SMPS, Solenoid for Breakers, Motor Controls, Heater Controls, other control applications

Features

- $I_{T(AV)}=0.5A$
- High Surge Current
- Lead-Free Package



Maximum Ratings

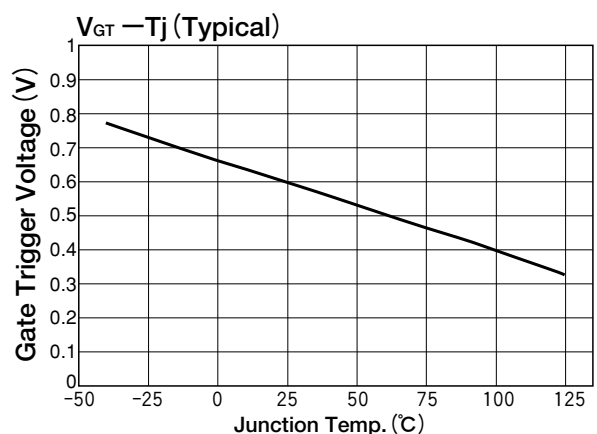
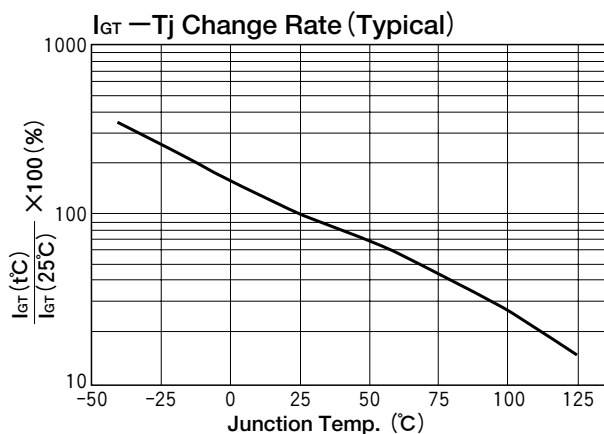
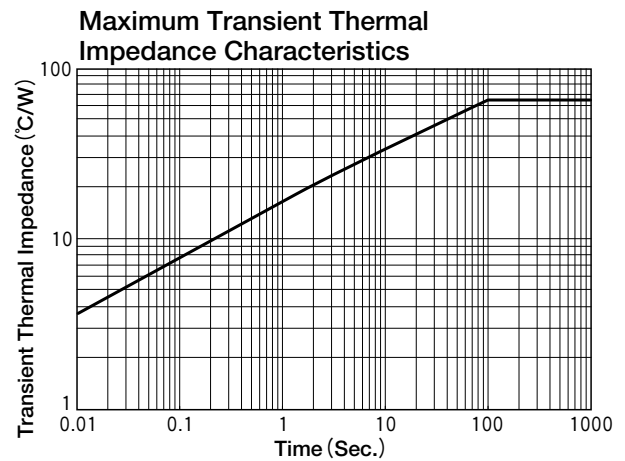
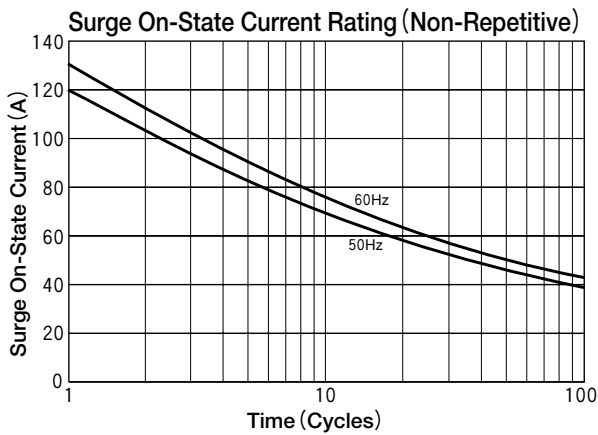
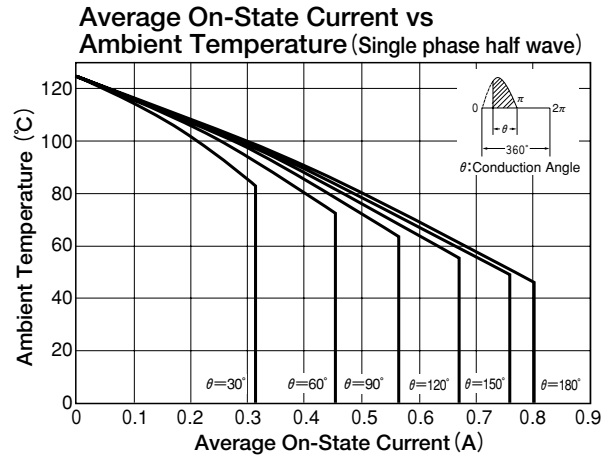
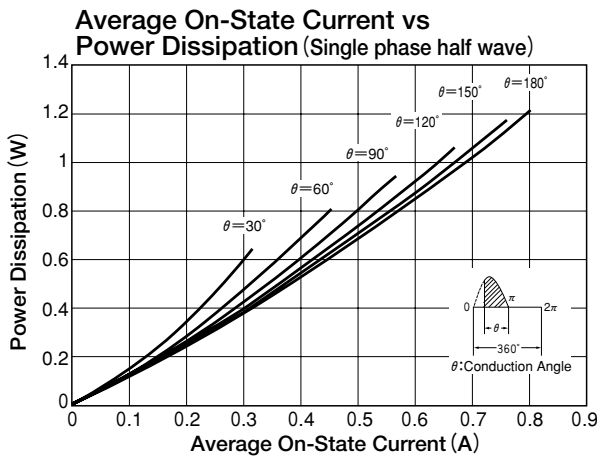
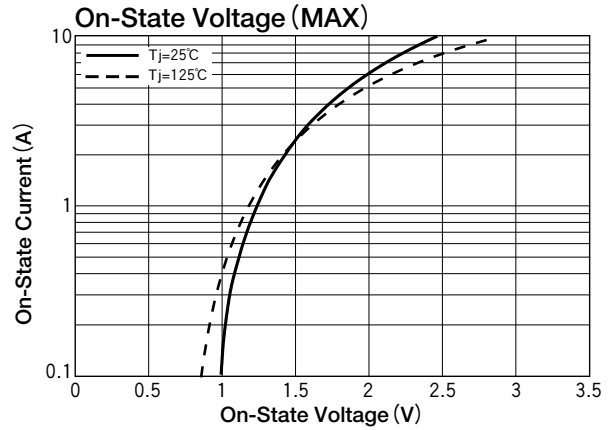
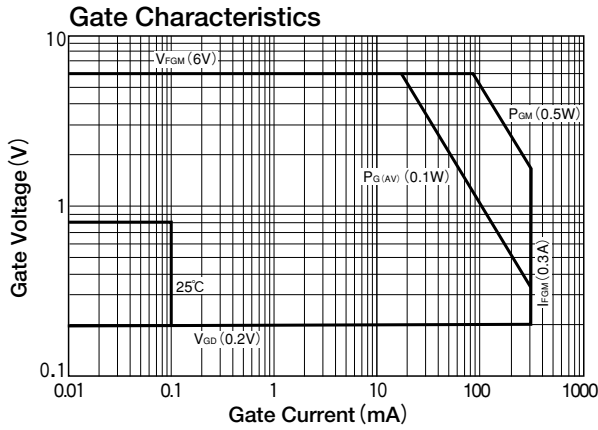
(Tj=25°C unless otherwise specified)

Symbol	Item	Reference	Ratings	Unit
VRRM	Repetitive Peak Reverse Voltage		600	V
VRSM	Non-Repetitive Peak Reverse Voltage		720	V
VDRM	Repetitive Peak Off-State Voltage		600	V
IT(AV)	Average On-State Current	Single phase, half wave, 180°, conduction, Tc=46°C	0.8	A
IT(RMS)	R.M.S. On-State Current	Single phase, half wave, 180°, conduction, Tc=46°C	1.3	A
ITSM	Surge On-State Current	50Hz/60Hz, 1/2 cycle Peak value, non-repetitive	18/20	A
I ² t	I ² t		1.65	A ² S
PGM	Peak Gate Power Dissipation		0.5	W
PG(AV)	Average Gate Power Dissipation		0.1	W
IFGM	Peak Gate Current		0.3	A
VFGM	Peak Gate Voltage (Forward)		6	V
VRGM	Peak Gate Voltage (Reverse)		6	V
Tj	Operating Junction Temperature		-40~+125	°C
Tstg	Storage Temperature		-40~+150	°C
	Mass		0.05	g

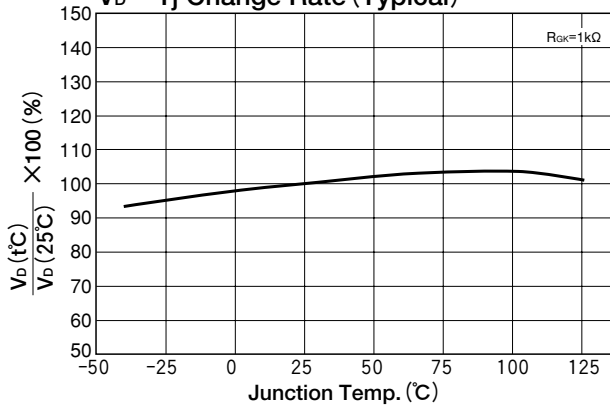
Electrical Characteristics

Symbol	Item	Reference	Ratings			Unit
			Min.	Typ.	Max.	
IDRM	Repetitive Peak Off-State Current	Tj=125°C, VD=VDRM, RGK=1kΩ			0.5	mA
IRRM	Repetitive Peak Reverse Current	Tj=125°C, VR=VRRM, RGK=1kΩ			0.5	mA
VTM	Peak On-State Voltage	IT=2.5A, Inst. measurement			1.5	V
IGT	Gate Trigger Current	VD=6V, RL=100Ω			100	μA
VGT	Gate Trigger Voltage				0.8	V
VGD	Non-Trigger Gate Voltage	Tj=125°C, VD=1/2VDRM, RGK=1kΩ	0.2			V
IH	Holding Current			300		μA
Rth(j-a)	Thermal Resistance	Junction to ambient			65	°C/W

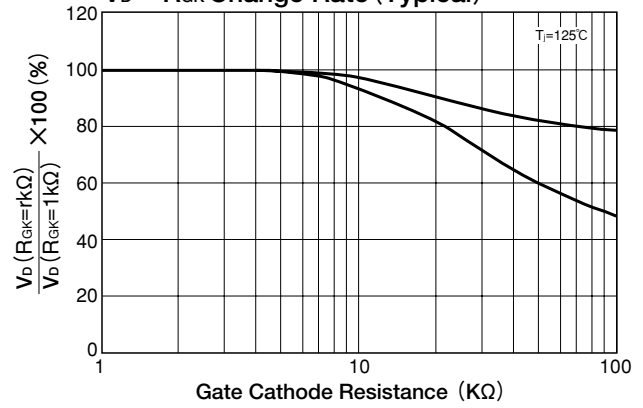




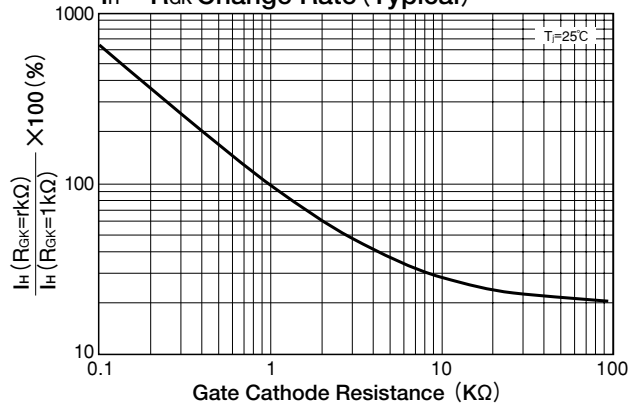
V_D – T_J Change Rate (Typical)



V_D – R_{GK} Change Rate (Typical)



I_H – R_{GK} Change Rate (Typical)



V_R – T_J Change Rate (Typical)

