

# THYRISTOR(Through Hole/Non-isolated)

## SMG8C60

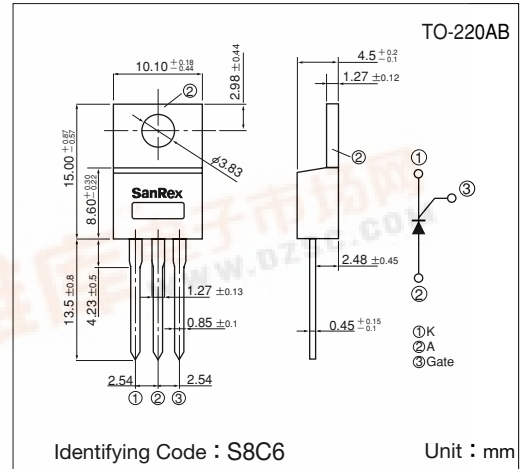
**SanRex** Thyristor **SMG8C60** is designed for full wave AC control applications. It can be used as an ON/OFF function or for phase control operation.

### 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

- $I_{T(AV)}=8A$
- High Surge Current
- Low Voltage Drop
- Lead-Free Package



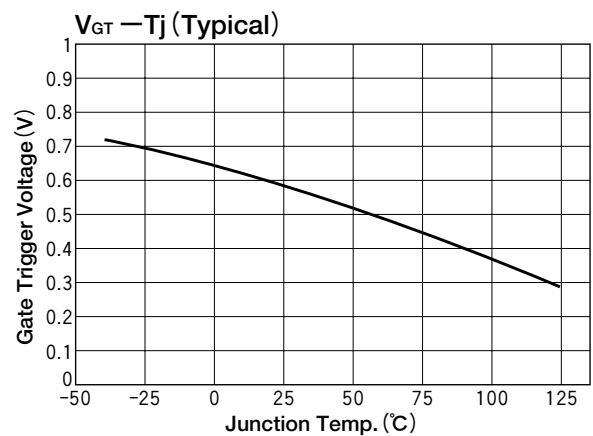
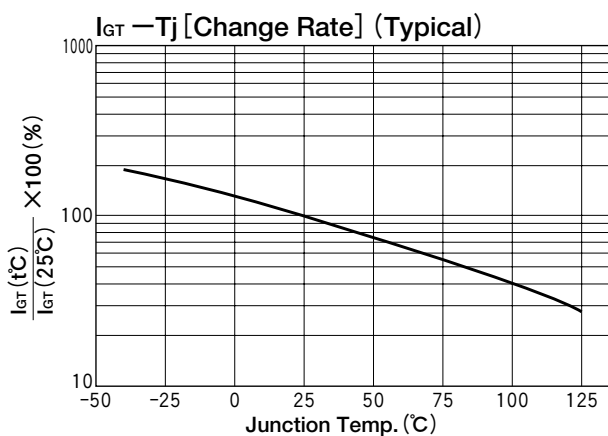
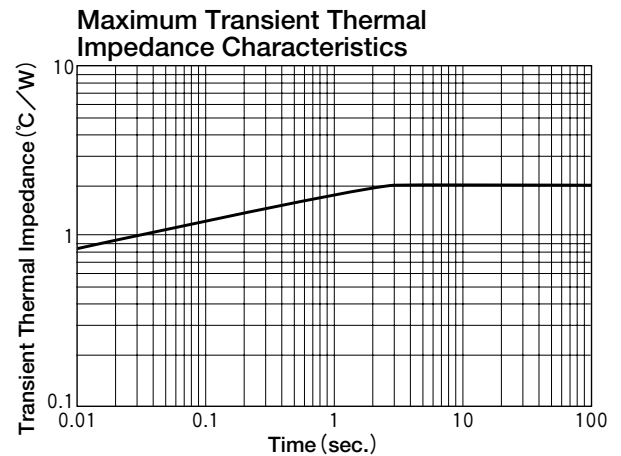
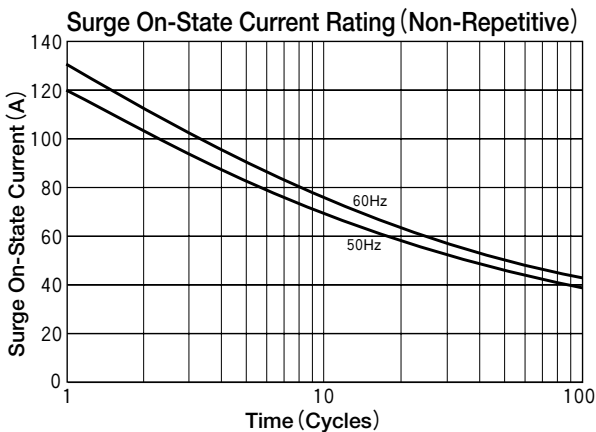
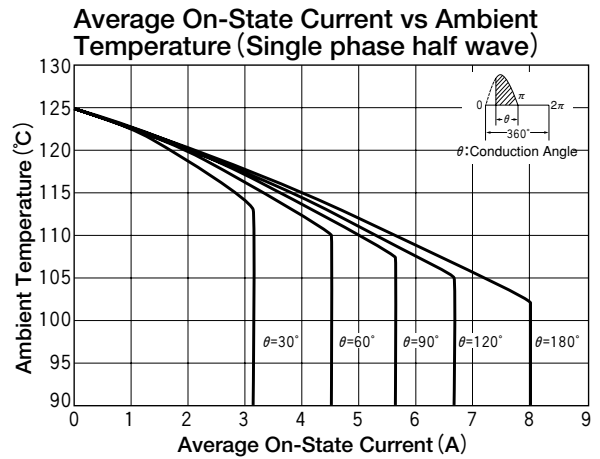
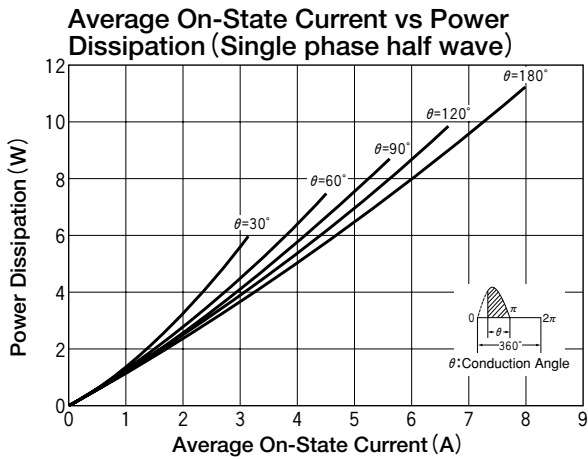
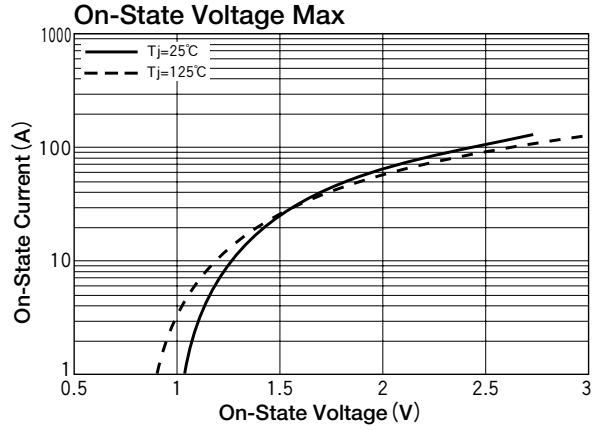
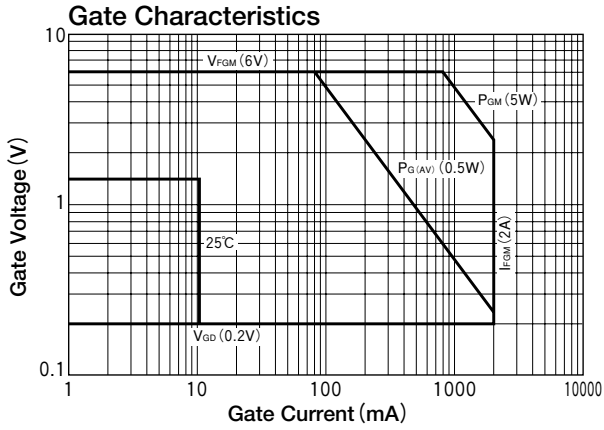
### Maximum Ratings

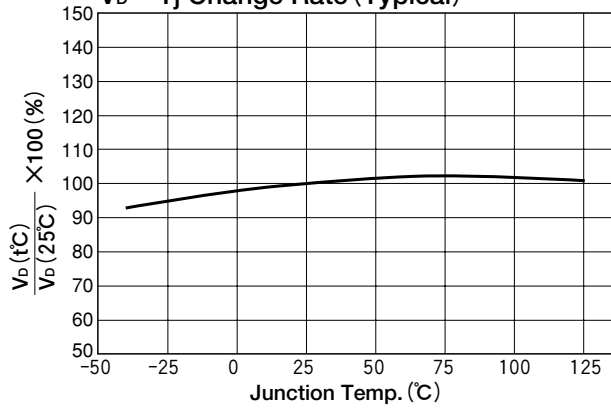
(Tj=25°C unless otherwise specified)

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=102°C	8	A
IT(RMS)	R.M.S. On-State Current	Single phase, half wave, 180°, conduction, Tc=102°C	12.6	A
ITSM	Surge On-State Current	50Hz/60Hz, 1/2 cycle Peak value, non-repetitive	120/130	A
I <sup>2</sup> t	I <sup>2</sup> t		72	A <sup>2</sup> S
PGM	Peak Gate Power Dissipation		5	W
PG(AV)	Average Gate Power Dissipation		0.5	W
IFGM	Peak Gate Current		2	A
VFGM	Peak Gate Voltage (Forward)		6	V
VRGM	Peak Gate Voltage (Reverse)		10	V
Tj	Operating Junction Temperature		-40~+125	°C
Tstg	Storage Temperature		-40~+150	°C
	Mass		2	g

### Electrical Characteristics

Symbol	Item	Reference	Ratings			Unit
			Min.	Typ.	Max.	
IDRM	Repetitive Peak Off-State Current	Tj=125°C, VD=VDRM			2	mA
IRRM	Repetitive Peak Reverse Current	Tj=125°C, VR=VRRM			2	mA
VTM	Peak On-State Voltage	IT=25A, Inst. measurement			1.5	V
IGT	Gate Trigger Current	VD=6V, RL=10 Ω			10	mA
VGT	Gate Trigger Voltage				1.4	V
VGD	Non-Trigger Gate Voltage	Tj=125°C, VD=1/2VDRM	0.2			V
IH	Holding Current			15		mA
Rth(j-c)	Thermal Resistance	Junction to case			2	°C/W



**$V_D - T_j$  Change Rate (Typical)** **$V_R - T_j$  Change Rate (Typical)**