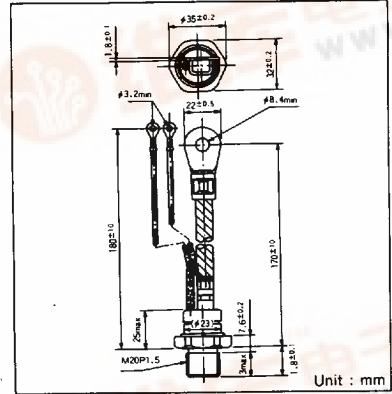


TRIAC

SSG150C

For general A.C. power control applications such as A.C. switches, light controls, speed controls and heater controls etc.

- General A.C. power use
- $I_{T(RMS)} = 150A$
- High voltage up to 1200V
- High surge current of 2200A
- Package types: stud



Maximum Ratings

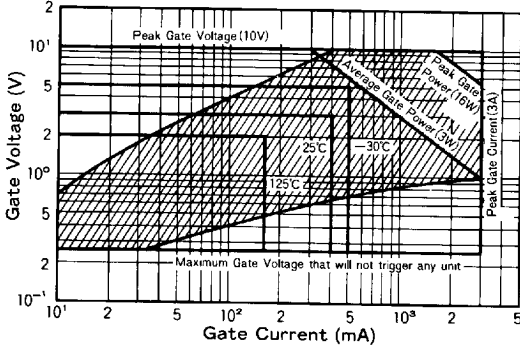
Symbol	Item	SSG150C40	SSG150C60	SSG150C80	SSG150C100	SSG150C120	Unit
V_{DRM}	Repetitive Peak Off-State Voltage	400	600	800	1000	1200	V

Symbol	Item	Conditions	Ratings	Unit
$I_{T(RMS)}$	R.M.S On-State Current	$T_c = 84^\circ C$	150	A
I_{TSM}	Surge On-State Current	One cycle, 50/60Hz, peak, non-repetitive	1980/2200	A
I^2t	I^2t	Value for one cycle of surge current	20000	A ² S
P_{GM}	Peak Gate Power Dissipation		16	W
$P_{G(AV)}$	Average Gate Power Dissipation		3	W
I_{GM}	Peak Gate Current		3	A
V_{GM}	Peak Gate Voltage		10	V
di/dt	Critical Rate of Rise of On-State Current	$I_G = 400mA, T_j = 25^\circ C, V_D = \frac{1}{2} V_{DRM}, di_G/dt = 1A/\mu s$	50	A/ μs
T_j	Operating Junction Temperature		-30~+125	$^\circ C$
T_{stg}	Storage Temperature		-30~+125	$^\circ C$
	Mounting Torque	Recommended Value 160kgf·cm	200	kgf·cm
	Mass	Excluding nut, washer and wrapping material	194	g

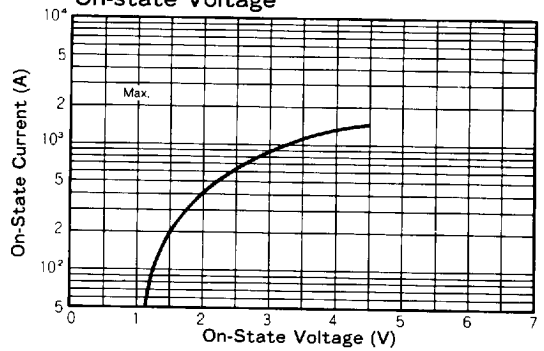
Electrical Characteristics

Symbol	Item	Conditions	Ratings	Unit
I_{DRM}	Repetitive Peak Off-State Current, max.	at V_{DRM} , single phase, half wave, $T_j = 125^\circ C$	15	mA
V_{TM}	Peak On-State Voltage, max.	$I_T = 210A, T_j = 25^\circ C$ Inst. measurement	1.5	V
I_{GT1}^+	Gate Trigger Current, max.	$T_j = 25^\circ C, I_T = 1A, V_D = 6V$	400	mA
I_{GT1}^-		$T_j = 25^\circ C, I_T = 1A, V_D = 6V$	400	
I_{GT3}^+			-	
I_{GT3}^-		$T_j = 25^\circ C, I_T = 1A, V_D = 6V$	400	
V_{GT1}^+	Gate Trigger Voltage, max.	$T_j = 25^\circ C, I_T = 1A, V_D = 6V$	3	V
V_{GT1}^-		$T_j = 25^\circ C, I_T = 1A, V_D = 6V$	3	
V_{GT3}^+			-	
V_{GT3}^-		$T_j = 25^\circ C, I_T = 1A, V_D = 6V$	3	
V_{GD}	Non-Trigger Gate Voltage, min.	$T_j = 125^\circ C, V_D = \frac{1}{2} V_{DRM}$	0.25	V
t_{gt}	Turn On Time, max	$I_T = 150A, I_G = 400mA, V_D = \frac{1}{2} V_{DRM}, T_j = 25^\circ C, di_G/dt = 1A/\mu s$	10	μs
dv/dt	Critical Rate of Rise of On-State Voltage, min.	$T_j = 125^\circ C, V_D = \frac{2}{3} V_{DRM}$, Exponential wave.	50	V/ μs
$(dv/dt)_c$	Critical Rate of Rise off-State Voltage at commutation, min	$T_j = 125^\circ C, (di/dt)_c = 1A/ms, V_D = \frac{2}{3} V_{DRM}$	50	V/ μs
I_H	Holding Current, typ.	$T_j = 25^\circ C$	100	mA
$\theta_{th(j-c)}$	Thermal Impedance, max.	Junction to case	0.2	$^\circ C/W$

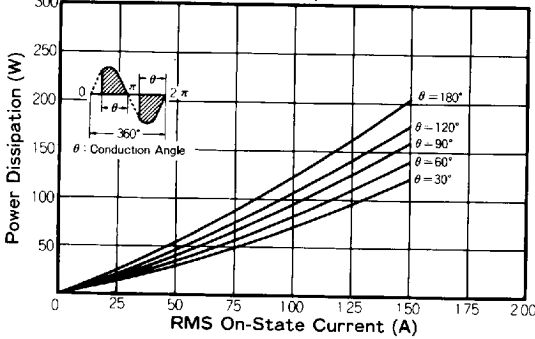
Gate Characteristics



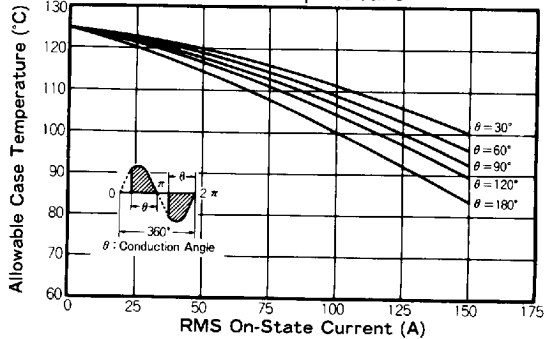
On-state Voltage



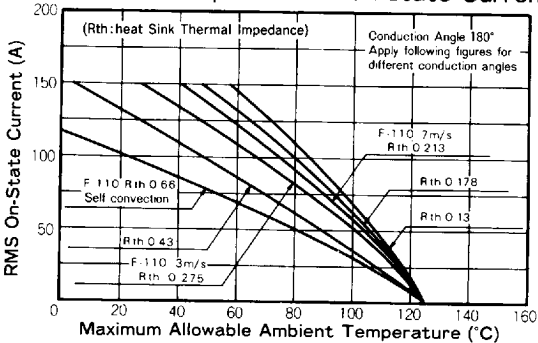
On state Current vs. Maximum Power Dissipation



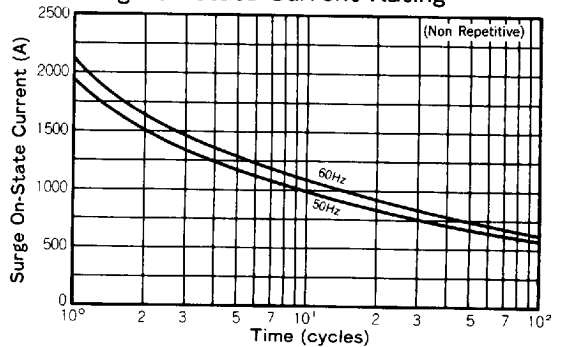
On state Current vs. Allowable Case Temperature



Ambient temp. vs. RMS On state Current



Surge On state Current Rating



Transient Thermal Impedance

