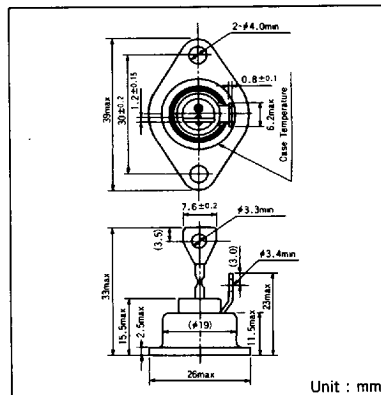


SSG25C-Y

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
- $I_{T(RMS)} = 25A$
- High voltage up to 1200V
- High surge current of 250A
- Package types; diamond



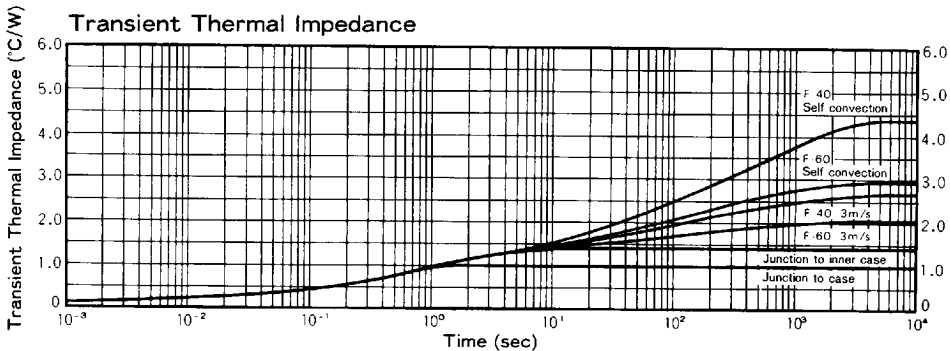
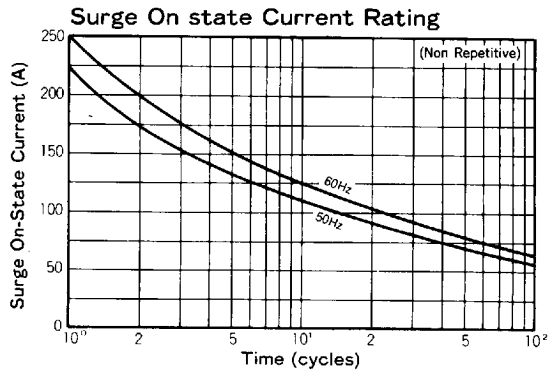
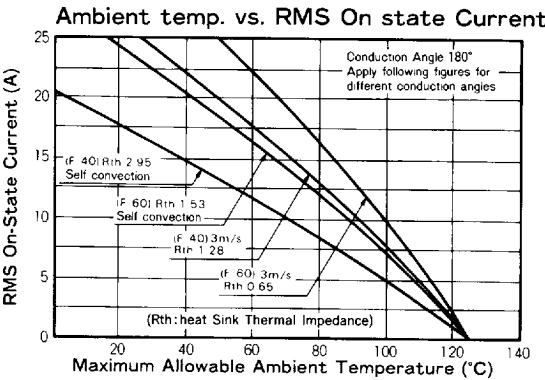
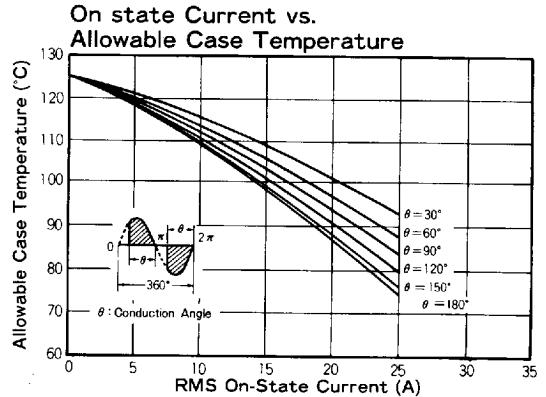
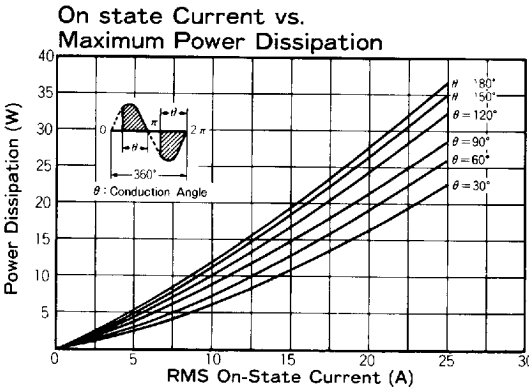
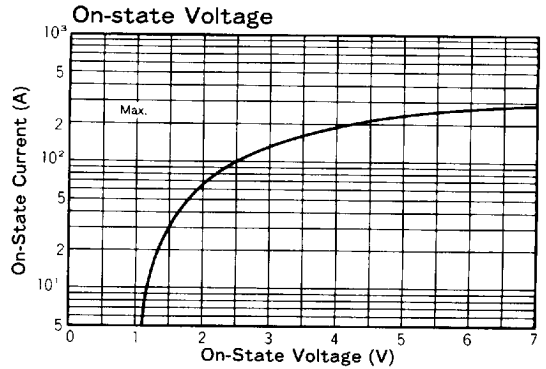
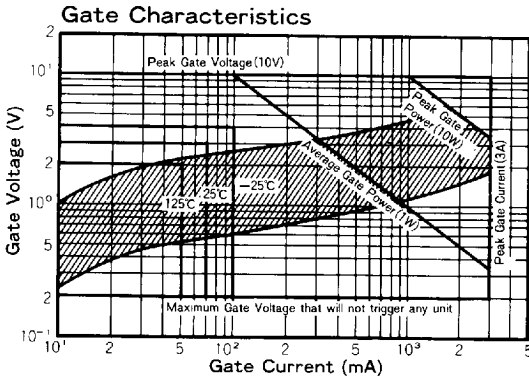
Maximum Ratings

Symbol	Item	SSG25C40Y	SSG25C60Y	SSG25C80Y	SSG25C100Y	SSG25C120Y	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	Base = 74°C	25	A
I_{TSM}	Surge On-State Current	One cycle, 50/60Hz, peak, non-repetitive	220/250	A
I^2t	I^2t	Value for one cycle of surge current	260	A ² S
P_{GM}	Peak Gate Power Dissipation		10	W
$P_{G(AV)}$	Average Gate Power Dissipation		1	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	$I_G = 100mA, T_j = 25°C, V_D = \frac{1}{2} V_{DRM}, di_G/dt = 1A/\mu s$	50	A/ μs
V_{ISO}	Isolation Breakdown Voltage(R.M.S)	A.C. 1minute	2500	V
T_j	Operating Junction Temperature		-25~+125	°C
T_{stg}	Storage Temperature		-25~+125	°C
	Mounting Torque	Recommended Value 10kgf·cm	12	kgf·cm
	Mass	Excluding bolt, nut and wrapping material	22	g

Electrical Characteristics

Symbol	Item	Conditions	Ratings	Unit
I_{DRM}	Repetitive Peak Off-State Current, max.	at V_{DRM} , single phase, half wave, $T_j = 125°C$	5	mA
V_{TM}	Peak On-State Voltage, max.	$I_T = 35A, T_j = 25°C$ Inst. measurement	1.6	V
I_{GT1}^+	Gate Trigger Current, max.	$T_j = 25°C, I_T = 1A, V_D = 6V$	70	mA
I_{GT1}^-		$T_j = 25°C, I_T = 1A, V_D = 6V$	70	
I_{GT3}^+			—	
I_{GT3}^-		$T_j = 25°C, I_T = 1A, V_D = 6V$	70	
V_{GT1}^+	Gate Trigger Voltage, max.	$T_j = 25°C, I_T = 1A, V_D = 6V$	3	V
V_{GT1}^-		$T_j = 25°C, I_T = 1A, V_D = 6V$	3	
V_{GT3}^+			—	
V_{GT3}^-		$T_j = 25°C, I_T = 1A, V_D = 6V$	3	
V_{GD}	Non-Trigger Gate Voltage, min.	$T_j = 125°C, V_D = \frac{1}{2} V_{DRM}$	0.2	V
t_{gt}	Turn On Time, max	$I_T = 25A, I_G = 100mA, V_D = \frac{1}{2} V_{DRM}, T_j = 25°C, di_G/dt = 1A/\mu s$	10	μs
dv/dt	Critical Rate of Rise of On-State Voltage, min.	$T_j = 125°C, V_D = \frac{2}{3} V_{DRM}$, Exponential wave.	100	V/ μs
$(dv/dt)_c$	Critical Rate of Rise off-State Voltage at commutation, min	$T_j = 125°C, [(di/dt)_c = 15A/ms, V_D = \frac{2}{3} V_{DRM}$	20	V/ μs
I_H	Holding Current, typ.	$T_j = 25°C$	30	mA
$R_{th(j-c)}$	Thermal Impedance, max.	Junction to case	1.4	°C/W



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