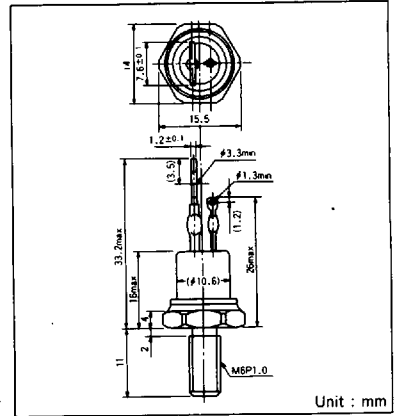


TRIAC

SSG25C

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; stud



Maximum Ratings

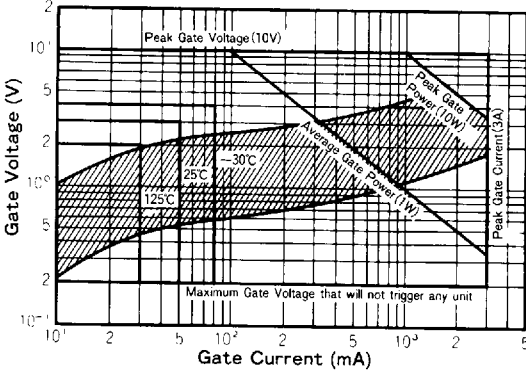
Symbol	Item	SSG25C40	SSG25C60	SSG25C80	SSG25C100	SSG25C120	Unit
V_{DRM}	Repetitive Peak off-State Voltage	400	600	800	1000	1200	V

Symbol	Item	Conditions	Ratings	Unit
$I_{T(RMS)}$	R.M.S On-State Current	$T_c = 88^\circ C$	25	A
I_{TSM}	Surge On-State Current	One cycle, 50/60Hz, peak, non-repetitive	220/250	A
I_t^2	I_t^2	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	$I_G = 100mA, T_j = 25^\circ C, V_D = \frac{1}{2} V_{DRM}, dl_G/dt = 1A/\mu s$	50	A/ μs
T_j	Operating Junction Temperature		-30 ~ +125	$^\circ C$
T_{stg}	Storage Temperature		-30 ~ +125	$^\circ C$
	Mounting Torque	Recommended Value 12kgf·cm	15	kgf·cm
	Mass	Excluding nut, washer, 26g. and wrapping material 3g	13.6	g

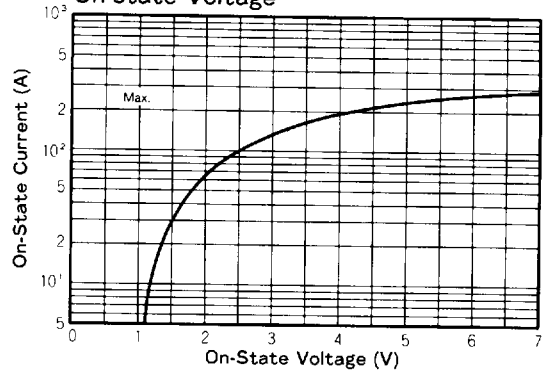
Electrical Characteristics

Symbol	Item	Conditions	Ratings	Unit
I_{DRM}	Repetitive Peak Off-State Current, max.	at V_{DRM} , single phase, half wave, $T_j = 125^\circ C$	3	mA
V_{TM}	Peak On-State Voltage, max.	$I_T = 35A, T_j = 25^\circ C$ Inst. measurement	1.6	V
I_{GT1}^+	Gate Trigger Current, max.	$T_j = 25^\circ C, I_T = 1A, V_D = 6V$	70	mA
I_{GT1}^-		$T_j = 25^\circ C, I_T = 1A, V_D = 6V$	70	
I_{GT3}^+			—	
I_{GT3}^-		$T_j = 25^\circ C, I_T = 1A, V_D = 6V$	70	
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.	$T_j = 125^\circ C, V_D = \frac{1}{2} V_{DRM}$	0.2	V
t_{gt}	Turn On Time, max	$I_T = 25A, I_G = 100mA, V_D = \frac{1}{2} V_{DRM}, T_j = 25^\circ C, dl_G/dt = 1A/\mu s$	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.	100	V/ μs
$(dv/dt)_c$	Critical Rate of Rise off-State Voltage at commutation, min	$T_j = 125^\circ C, (di/dt)_c = 15A/ms, V_D = \frac{2}{3} V_{DRM}$	20	V/ μs
I_H	Holding Current, typ.	$T_j = 25^\circ C$	30	mA
$R_{th(j-c)}$	Thermal Impedance, max.	Junction to case	1.0	$^\circ C/W$

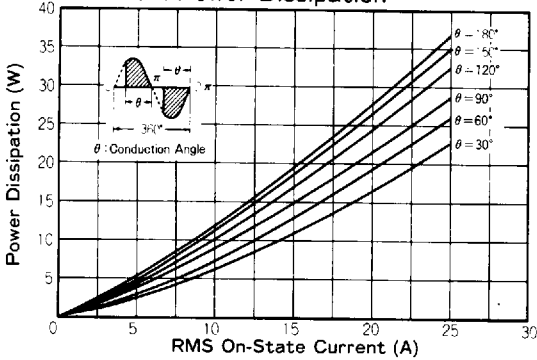
Gate Characteristics



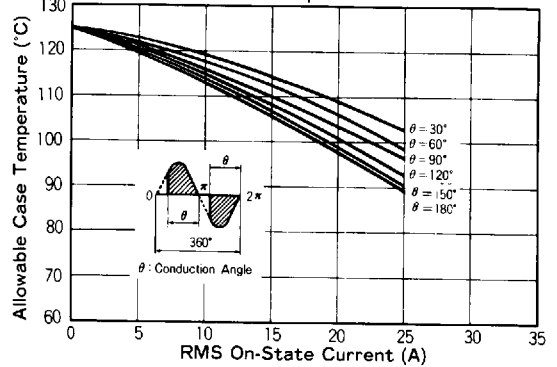
On-state Voltage



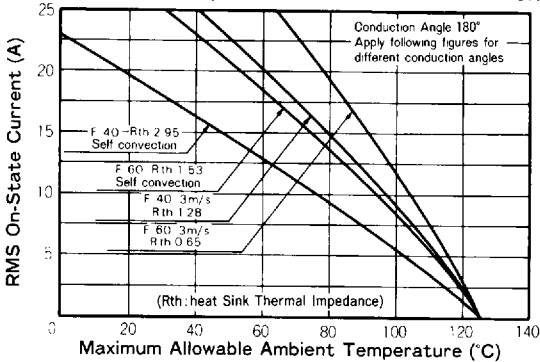
On state Current vs. Maximum Power Dissipation



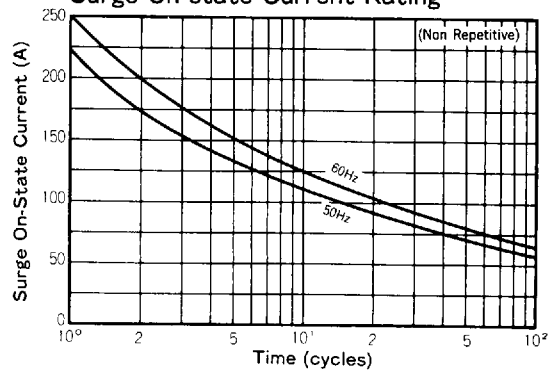
On state Current vs. Allowable Case Temperature



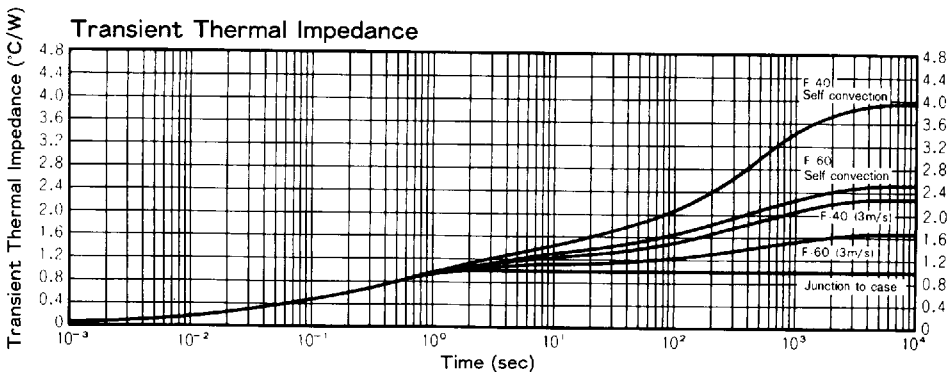
Ambient temp. vs. RMS On state Current



Surge On state Current Rating



Transient Thermal Impedance



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