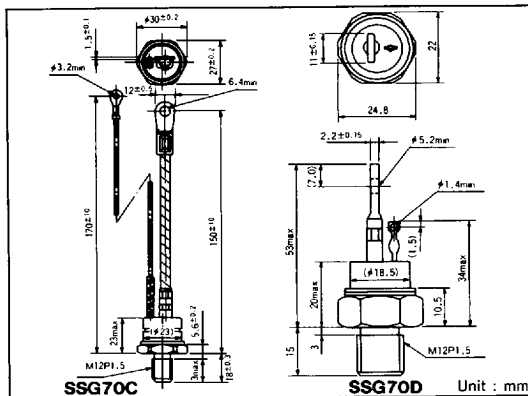
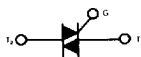


SSG70C/70D

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
- $I_{T(RMS)} = 70A$
- High voltage up to 1200V
- High surge current of 1000A
- Package types; stud



Maximum Ratings

Symbol	Item	SSG70C40/D40	SSG70C60/D60	SSG70C80	SSG70C100	SSG70C120	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 = 85°C	70	A
I _{TSM}	Surge On-State Current		One cycle, 50/60Hz, peak, non-repetitive	900/1000	A
I ² t	I ² t		Value for one cycle of surge current	4100	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 = 2000mA, T _j = 25°C, V ₀ = ½ V _{DRM} , di _G /dt = 1A/μs	50	A/μs
T _j	Operating Junction Temperature			−30~+125	°C
T _{stg}	Storage Temperature			−30~+125	°C
	Mounting Torque	70C	Recommended Value 112kgf•cm	140	kgf•cm
		70D	Recommended Value 104kgf•cm	130	
	Mass	70C	Excluding nut & washer. 19g. and wrapping material 13g	96	g
		70D		63	

Electrical Characteristics

Symbol	Item	Conditions	Ratings	Unit
I_{DRM}	Repetitive Peak Off-State Current, max.	at V_{DRM} , single phase, half wave, $T_j = 125^\circ C$	10	mA
V_{TM}	Peak On-State Voltage, max.	$I_T = 100A$, $T_j = 25^\circ C$ Inst. measurement	1.5	V
I_{GT1}^+	Gate Trigger Current, max.	$T_j = 25^\circ C$, $I_G = 1A$, $V_D = 6V$	200	mA
I_{GT1}^-		$T_j = 25^\circ C$, $I_T = 1A$, $V_D = 6V$	200	
I_{GT3}^+			—	
I_{GT3}^-		$T_j = 25^\circ C$, $I_T = 1A$, $V_D = 6V$	200	
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	$I_T = 70A$, $I_G = 200mA$, $V_D = \frac{1}{2} V_{DRM}$, $T_j = 25^\circ C$ $di_G/dt = 1A/\mu s$	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	$T_j = 125^\circ C$, $(di/dt)_c = 40A/ms$, $V_D = \frac{2}{3} V_{DRM}$	20	V/ μs
I_H	Holding Current, typ.	$T_j = 25^\circ C$	70	mA
$R_{th(j-c)}$	Thermal Impedance, max.	Junction to case	0.4	$^\circ C/W$

