SanRex Fast Switching Thyristors

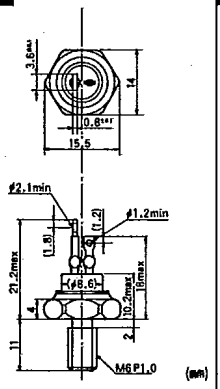
$I_{T(AV)}$ [A]		16amp (Tc=77℃) Fast Switching SCR tq≦10μs	20amp (Tc=75℃) Fast Switching SCR tq≦10μs	30amp (Tc=65℃) Fast Switching SCR tq≦10μs	70amp (Tc=74℃) Fast Switching SCR tq≦30μs	150amp (Tc=79℃) Fast Switching SCR tq≦10μs	30amp (Tc=85℃) High Freq Switching SCR tq≦7.5μs	20amp (Tc=90℃) Reverse Conductive Thyristor
V_{RRM}* V_{DRM} (V_{RSM})** [V]	100 (120)	SC16C10J	SC20C10J	SC30C10J	SC70C10L	SC150C10J		
	200 (240)	SC16C20J	SC20C20J	SC30C20J	SC70C20L	SC150C20J		
	300 (360)	SC16C30J	SC20C30J	SC30C30J	SC70C30L	SC150C30J		
	400 (480)	SC16C40J	SC20C40J	SC30C40J	SC70C40L	SC150C40J	SC20C40H	SN20C40
	500 (600)	SC16C50J	SC20C50J	SC30C50J	SC70C50L	SC150C50J	SC20C50H	SN20C50
	600 (720)	SC16C60J	SC20C60J	SC30C60J	SC70C60L		SC20C60H	SN20C60
	700						SC20C70H	SN20C70
	800							SN20C80
	900							SN20C90
$I_{T(RMS)}$ [A]		25	30	47	110	230	47	30($V_{R(RMS)}$=10)
I_{TSM} (50/60Hz) [A]		220/250	300/340	450/500	1,350/1,500	4,000/4,400	450/500	260/300
I^2t [A^2·sec]		260	480	1,040	9,370	80,600	1,040	370
di/dt [A/μs]		50	50	50	50	200	200	28 (f≦28kHz)
I_{DRM}, I_{RRM} [mA]		6	10	10	10	15	10	5
V_{TM} [V]		2.5	2.5	2.5	1.8	1.8	2.5	2.2
I_{GT} [mA]		50	70	70	70	100	150	120
V_{GT} [V]		3	3	3	3	3	1.55	1.1
V_{GD} [V]		0.25	0.25	0.25	0.25	0.25	0.25	0.25
tq [μs]		10	10	10	30	10	7.5	12
dv/dt [V/μs]		100	100	100	100	200	1,100	1,000
Tj [℃]		−30~+125	−30~+125	−30~+125	−30~+125	−30~+125	−30~+125	−30~+125
Rth [℃/W]		1.2	1.0	0.8	0.4	0.17	0.55	0.58
Package Outline		S2	S3	S3	S5	S9	S2	S2.1

*Not Applicable for SN20C

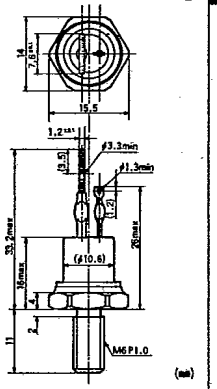
**Not Applicable for SC20C-H or SN20C

$I_{T(AV)}$ Average On-State Current
V_{RRM} Repetitive Peak Reverse Voltage
V_{DRM} Repetitive Peak Off-State Voltage
V_{RSM} Non-Repetitive Peak Reverse Voltage
$I_{T(RMS)}$ RMS On-State Current
I_{TSM} Surge On-State Current
I^2t I^2t for fusing (2~10msec)
di/dt Critical Rate of Rise of On-State Current (I_G≒⅓I_{GT}, Tj=25℃, V_D=½V_{DRM}, dig/dt=1A/μs)
I_{DRM} Repetitive Peak Off-State Current, max. (at V_{DRM}, Single phase half wave)
I_{RRM} Repetitive Peak Reverse Current, max. (at V_{RRM}, Single phase half wave)
V_{TM} Peak On-State Voltage, max.(I_T≒1.4$I_{T(RMS)}$, Tj=25℃)
I_{GT} Gate Trigger Current, max.(Tj=25℃, I_T=1A, V_D=6V)
V_{GT} Gate Trigger Voltage, max.(Tj=25℃, I_T=1A, V_D=6V)
V_{GD} Non-Trigger Gate Voltage, min.(Tj=125℃, V_D=½V_{DRM})
tq Turn Off Time, max.(Tj=125℃, I_T=$I_{T(AV)}$ V_R=50V, V_D=½V_{DRM}, dv/dt=20V/μs)
dv/dt Critical Rate of Rise of Off-State Voltage, min. (Tj=125℃, V_D=⅔V_{DRM}, Exponential wave)
Tj Operating Junction Temperature Range
Rth Thermal Impedunce, max.

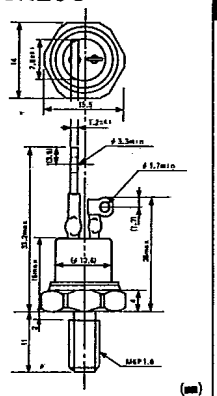
S1 SSG16C SC10C



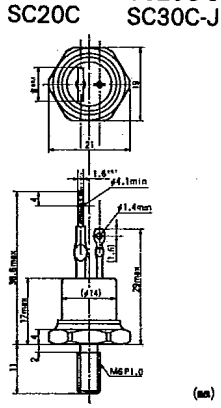
S2 SSG25C·SC20C-H SC16C·SC16C-J



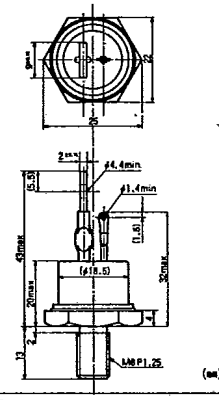
S2.1 SN20C



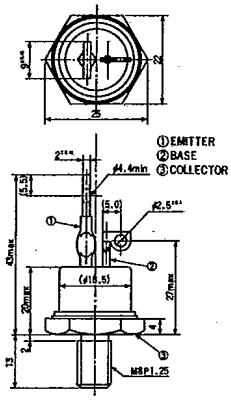
S3 SSG35C SC30C SSG45C SC20C-J SC20C SC30C-J



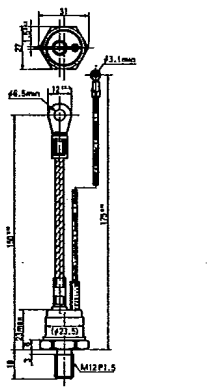
S4 SSG50C SC40C



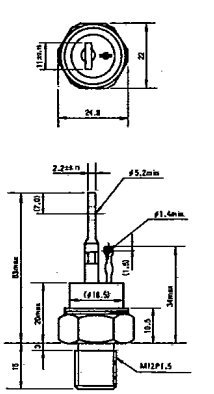
S4.1 SQ50FE



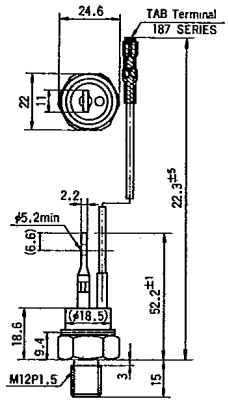
S5 SSG70C SC70C SSG100C SC70C-L



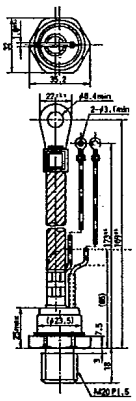
S6 SSG70D



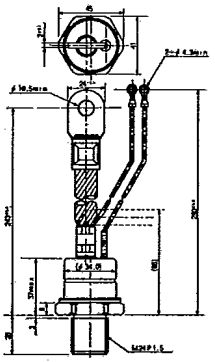
S6.1 AS60C AS80C



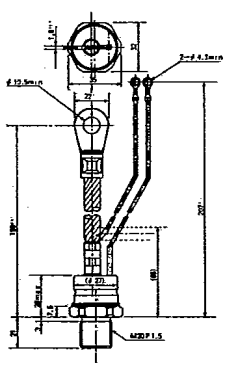
S7 SSG150C SC100C



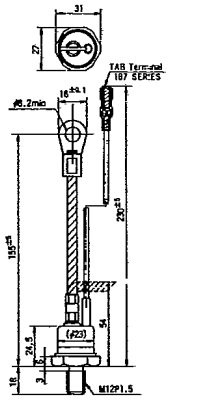
S8 SSG300C SC300C



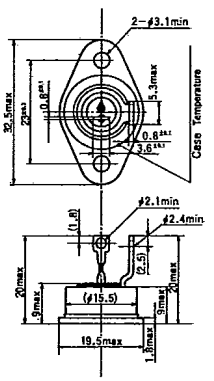
S9 SC150C SC150-J AS250C



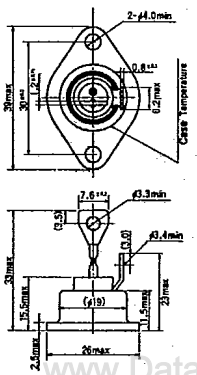
S11 AS100C AS120C



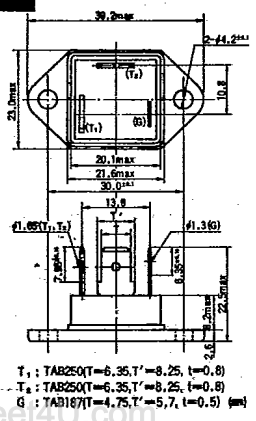
Y1 SSG16C-Y



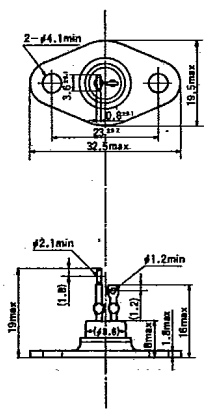
Y2 SSG25C-Y SSG35C-Y



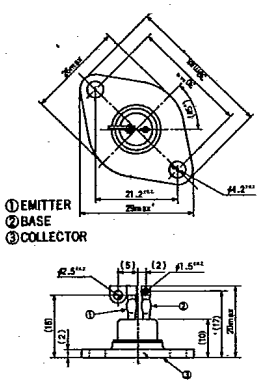
T1 TG16C·TG25C



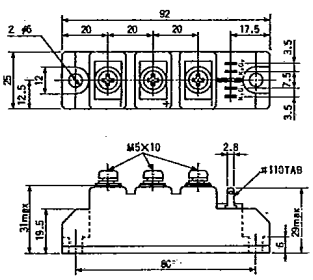
D1 SSG16C-D SC10C-D



D2 SQ25FE



M1 PKseries



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