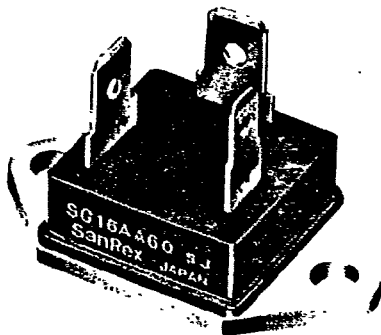
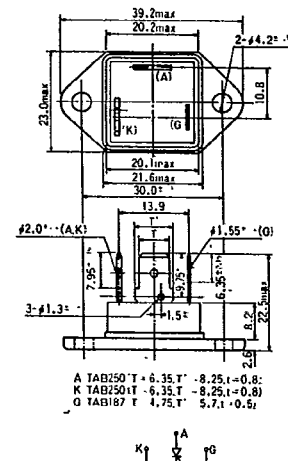


SanRex®**SG16AA**

SEP 27 1988

S.P.M.J

T-25-15

ISOLATED MOLD TYPE THYRISTOR**NEW****Maximum Ratings**

Item	Symbol	Unit	SG16AA20	SG16AA30	SG16AA40	SG16AA50	SG16AA60
Repetitive Peak Reverse Voltage	V _{RRM}	V	200	300	400	500	600
Non-Repetitive Peak Reverse Voltage	V _{RSM}	V	240	360	480	600	720
Repetitive Peak Off-State Voltage	V _{ORM}	V	200	300	400	500	600

Item	Symbol	Unit	Rating	Reference
Average On-State Current	I _{T(AV)}	A	16	Single phase, half wave, 180° conduction, T _c : 80°C
R.M.S. On-State Current	I _{T(RMS)}	A	25	Single phase, half wave, 180° conduction, T _c : 80°C
Surge On-State Current	I _{TSM}	A	220/250	1/2 cycle, 50/60Hz, peak value, non-repetitive
I ² t (for fusing)	I ² t	A ² S	260	2~10ms
Peak Gate Power Dissipation	P _{GM}	W	10	
Average Gate Power Dissipation	P _{G(AV)}	W	1	
Peak Gate Current	I _{FGM}	A	3	
Peak Gate Voltage Forward	V _{FGM}	V	10	
Peak Gate Voltage Reverse	V _{RGM}	V	5	
Critical Rate of Rise of On-State Current	di/dt	A/μs	100	I _g =100mA, T _j =25°C, V _o =1/2 V _{ORM} , dI _G /dt=1A/μs
Isolation Breakdown Voltage (R.M.S.)	V _{iso}	V	2500	A.O. 1 minute
Operating Junction Temperature	T _j	°C	-40~+125	
Storage Temperature	T _{stg}	°C	-40~+125	
Mounting Torque	Mounting M4	kgf·cm	11~14	Recommended Value 12.5kgf·cm
Mass		g	170	

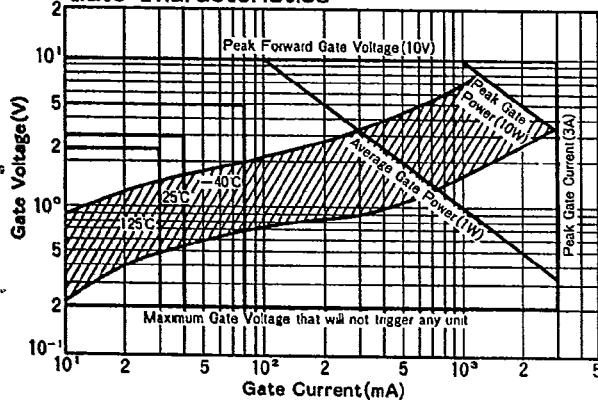
Electrical Characteristics

Item	Symbol	Unit	Rating	Reference
Repetitive Peak Off-State Current, max.	I _{ORM}	mA	3	at V _{ORM} , Single phase, half wave
Repetitive Peak Reverse Current, max.	I _{RRM}	mA	3	at V _{RRM} , Single phase, half wave
Peak On-State Voltage, max.	V _{TM}	V	1.50	On-State Current 50A, T _j =25°C, Inst. measurement
Gate Trigger Current/Voltage, max.	I _{GT} /V _{GT}	mA/V	40/3	T _j =25°C, I _T =1A, V _o =6V
Non-Trigger Gate Voltage, min.	V _{GD}	V	0.2	T _j =125°C, V _o =1/2 V _{ORM}
Turn On Time, max.	t _{gt}	μs	10	I _T =10A, I _g =100mA, T _j =25°C, V _o =1/2 V _{ORM} , dI _G /dt=1A/μs
Critical Rate of Rise of Off-State Voltage, min.	dv/dt	V/μs	100	T _j =125°C, V _o =3/4 V _{ORM} , Exponential wave.
Holding Current, max.	I _H	mA	30	T _j =25°C
Thermal Impedance, max.	R _{th}	°C/W	2.0	Junction to case

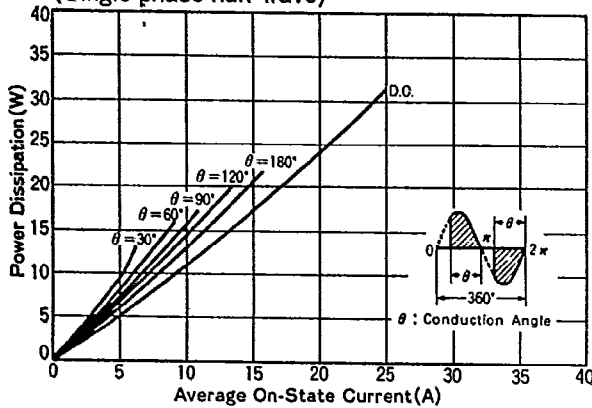
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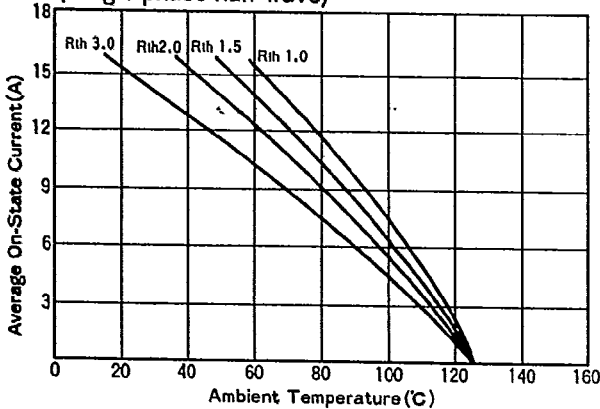
Gate Characteristics



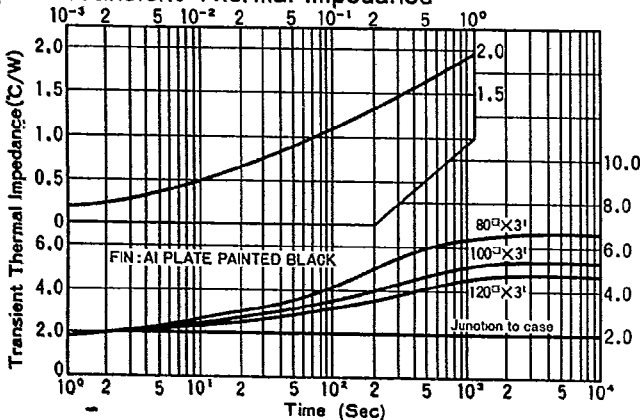
Average On-State Current Vs Power Dissipation (Single phase half wave)



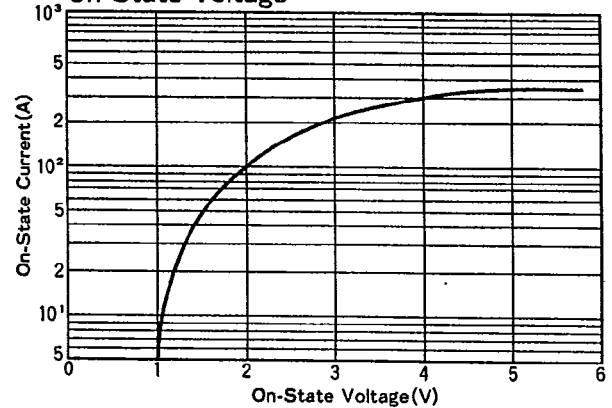
Ambient Temperature Average On-State (Single phase half wave)



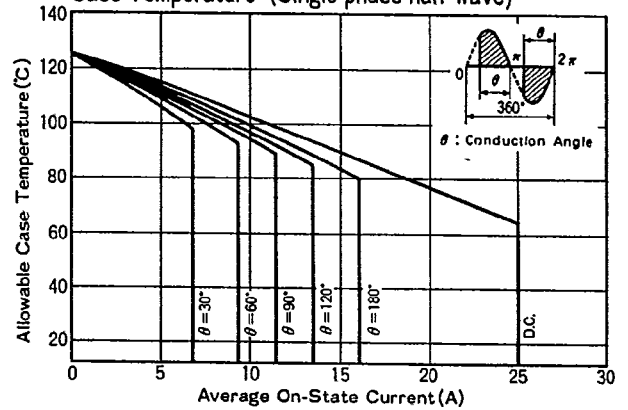
Transient Thermal Impedance



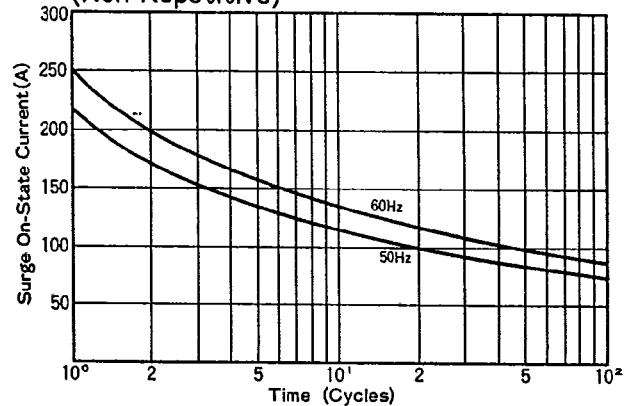
On-State Voltage



Average On-State Current Vs Maximum Allowable Case Temperature (Single phase half wave)



Surge On-State Current Rating (Non-Repetitive)



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