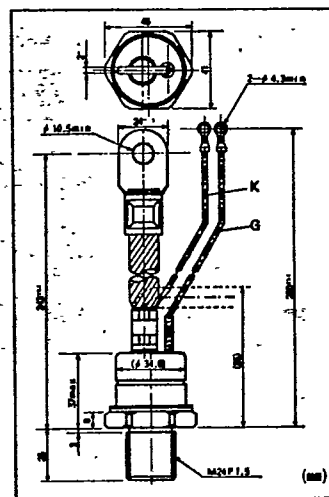


T-25-19

TY03

- General power use
- $I_T=300A$, $I_{T(RMS)}=470A$
- High voltage up to 1200V
- High surge current of 7000A
- Stud type



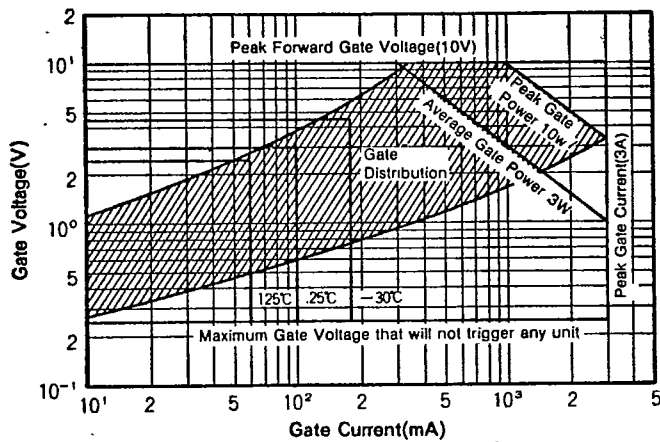
SEE - May

Item	Symbol	Unit	SC300C -20	SC300C -30	SC300C -40	SC300C -50	SC300C -60	SC300C -80	SC300C -100	SC300C -120
Repetitive Peak Reverse Voltage	V _{RRM}	V	200	300	400	500	600	800	1000	1200
Non-Repetitive Peak Reverse Voltage	V _{RSM}	V	240	360	480	600	720	960	1100	1300
Repetitive Peak Off-State Voltage	V _{ORM}	V	200	300	400	500	600	800	1000	1200

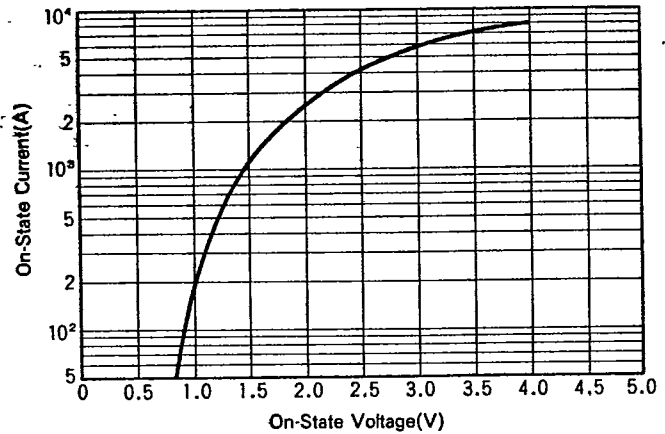
Item	Symbol	Unit	Rating	Reference	
Average On-State Current	$I_{T(AV)}$	A	300	Single phase, half wave, 180° conduction. Tc:85℃	
RMS On-State Current	$I_{T(RMS)}$	A	470	Single phase, half wave, 180° conduction, Tc:85℃	
Surge On-State Current	I_{TSM}	A	6,300/7,000	½ cycle 50/60Hz, peak, non-repetitive	
I²t(for fusing)	I²t	A²S	204,000	1 cycle	
Peak Gate Power Dissipation	P_{GM}	W	10		
Average Gate Power Dissipation	$P_{G(AV)}$	W	3		
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	50	SC300C-20~60	I _G =100mA, T _j =25℃ V _D =½ V _{DRM} , di _G /dt=0.1A/μs
			200	SC300C-80~120	
Operating Junction Temperature	T _j	℃	-30~+125		
Storage Temperature	T _{stg}	℃	-30~+125		
Mounting Torque		kgf·cm	550	Recommended 440kgf·cm	
Mass		g	430	Excluding nut & wrapping material	

Item	Symbol	Unit	Rating	Reference	
Repetitive Peak Off-State Current, max.	I_{DRM}	mA	25	at V_{DRM} , Single phase, half wave	
Repetitive Peak Reverse Current, max.	I_{RRM}	mA	25	at V_{RRM} , Single phase, half wave	
Peak On-State Voltage, max.	V_{TM}	V	1.45	On-State current 940A $T_j=25^\circ\text{C}$, Inst. measurement	
Gate Trigger Current, max.	I_{GT}	mA	100	$T_j=25^\circ\text{C}$ $I_T=1\text{A}$ $V_D=6\text{V}$	
Gate Trigger Voltage, max.	V_{GT}	V	3	$T_j=25^\circ\text{C}$ $I_T=1\text{A}$ $V_D=6\text{V}$	
Non-Trigger Gate Voltage, min.	V_{GD}	V	0.25	$T_j=125^\circ\text{C}$ $V_D=\frac{1}{2}V_{DRM}$	
Turn On Time, max	tgt	μs	10	$I_T=300\text{A}$ $I_G=100\text{mA}$ $T_j=25^\circ\text{C}$ $V_D=\frac{2}{3}V_{DRM}$ $dI_G/dt=0.1\text{A}/\mu\text{s}$	
Critical Rate of Rise of Off-State Voltage, min.	dv/dt	V/ μs	100	SC300C-20~60	$T_j=125^\circ\text{C}$ $V_D=\frac{2}{3}V_{DRM}$ Exponential wave.
			200	SC300C-80~120	
Holding Current, typ.	I_H	mA	50	$T_j=25^\circ\text{C}$	
Thermal Impedance, max.	R_{th}	$^\circ\text{C}/\text{W}$	0.09	Junction to case	

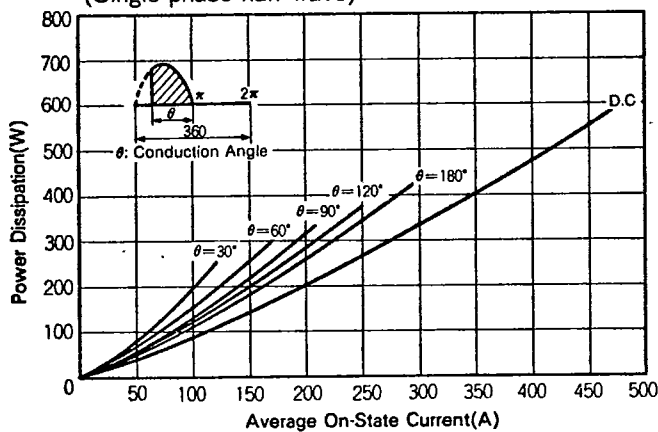
Gate Characteristics



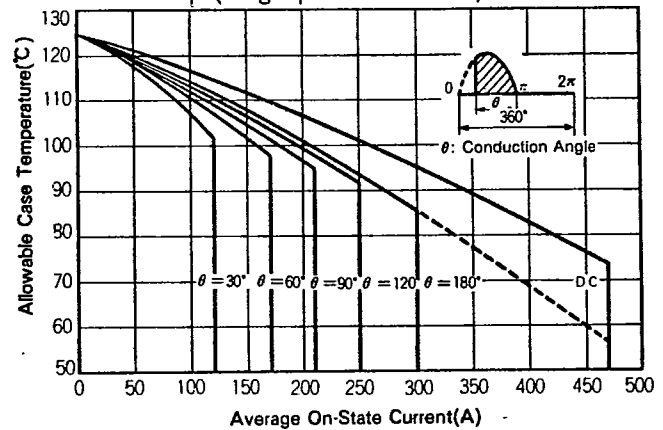
On-State Voltage



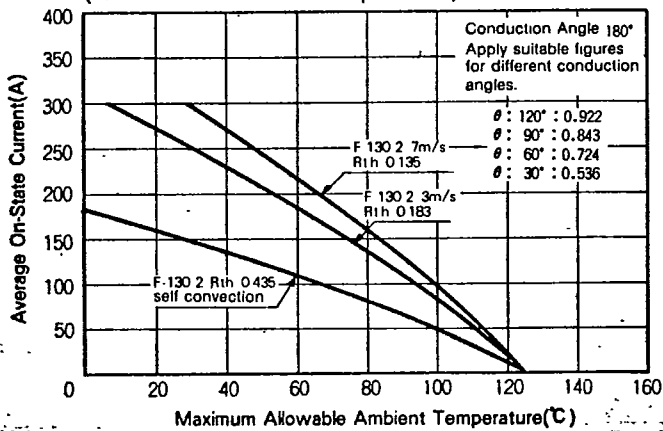
Average On-State Current vs. Power Dissipation (Single phase half wave)



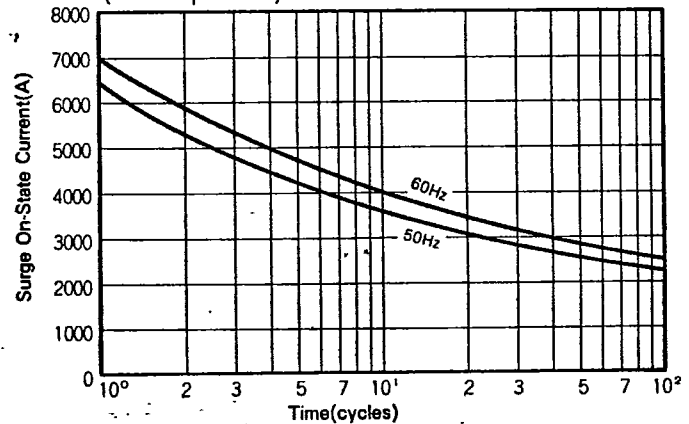
Average On-State Current vs. Maximum Allowable Case Temp. (Single phase half wave)



Ambient Temp. vs. Average On-State Current (Rth: heat sink thermal impedance)



Surge On-State Current Rating (Non-Repetitive)



Transient Thermal Impedance

