

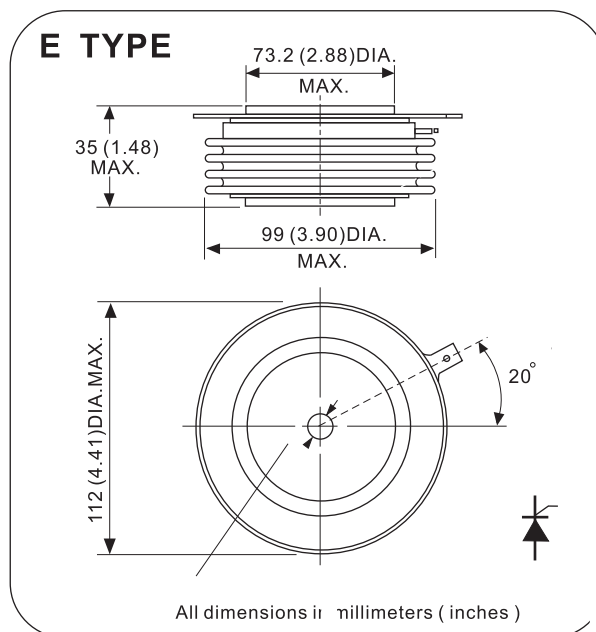
Features

1. Center amplifying gate.
2. Metal Case With Ceramic insulator.
3. Typical application
 - DC motor control
 - Controlled DC power supplies
 - AC controllers

Ordering code

3600	PT	22	E	0
(1)	(2)	(3)	(4)	(5)

- (1) Maximum average on-state current , A
 (2) For Phase Control Thyristor
 (3) Voltage code , code x 100 = VRRM / VDRM
 (4) package style : A , B , C , D ,E ,EX for Disc Type
 (5) Terminal types
 0 - for eyelet



Electrical Characteristics

Symbol	Parameter	Condition	Value			Unit
			Min.	Type	Max.	
$I_{T(AV)}$	Mean on-state current	180° half sine wave , 50Hz Double side cooled , $T_{hs} = 55^{\circ}C$			3600	A
$I_{T(RMS)}$	Max. RMS on-state current	Double side cooled , $T_{hs} = 25^{\circ}C$			7052	A
V_{RRM} V_{DRM}	Repetitive peak off-state voltage Repetitive peak reverse voltage	V_{DRM} & V_{RRM} $t_p = 10ms$ V_{DSM} & $V_{RSM} = \sqrt{V_{DRM}^2 + V_{RRM}^2} + 100V$	1400		2200	V
I_{TSM}	Surge on-state current	10 ms half sine wave			50	KA
I_t^2	For fusing coordination	$V_R = 0.6V_{RRM}$			12.5	A^2s10^3
$V_{T(TO)}$	Threshold voltage				0.97	V
r_t	On-state slope resistance				0.095	mΩ
V_{TM}	Max. Forward voltage drop	$I_{TM} = 3000A$			1.25	V
I_H	Holding current	$T_j = 25^{\circ}C$			1000	mA
d_i/dt	Critical rate of rise of turned-on current				150	A/μs
t_q	Turn-off time	$I_{TM} = 4000A$, $t_p = 1000\mu s$, $d_i/dt = 10A/\mu s$, $V_R = 50V$, $V_{DR} = 80\% V_{DRM}$, $d_v/dt = 20V/\mu s$		250		μs
		$I_{TM} = 4000A$, $t_p = 1000\mu s$, $d_i/dt = 10A/\mu s$, $V_R = 50V$, $V_{DR} = 80\% V_{DRM}$, $d_v/dt = 200V/\mu s$		450		
I_{RRM} I_{DRM}	Repetitive peak reverse current	$V_R = V_{RRM}$ $V_D = V_{DRM}$			200	mA
d_v/dt	Critical rate of rise of off-state voltage	$V_{DM} = 0.67 V_{DRM}$	1000			V/μs
P_G	Mean forward gate power				5	W
P_{GM}	Peak forward gate power				30	W
I_{GT}	Gate trigger current	$T_j = 25^{\circ}C$, $V_D = 10V$, $I_T = 3A$			300	mA
V_{GT}	Gate trigger voltage				3.0	V
V_{GD}	DC voltage notto trigger	At 76% V_{DRM} , $T_j = T_j$ MAX			0.25	V
T_j	Max.operating temperaturerange		- 40		125	°C
T_{stg}	Storage temperature		- 40		150	°C
$R_{th(j-h)}$	Thermal resistance(junction to heatsink)	Double side cooled , clamping force 8.0 KN			0.011	°C/W
F_m	Mounting force		35		47	KN
w_t	Approximate weight			1600		g

Figure 1 – On-state characteristics of Limit device

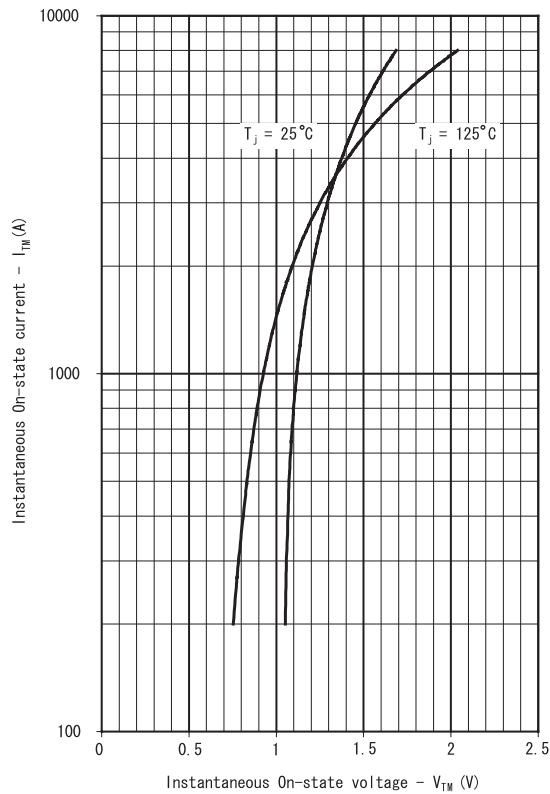


Figure 2 – Transient Thermal Impedance

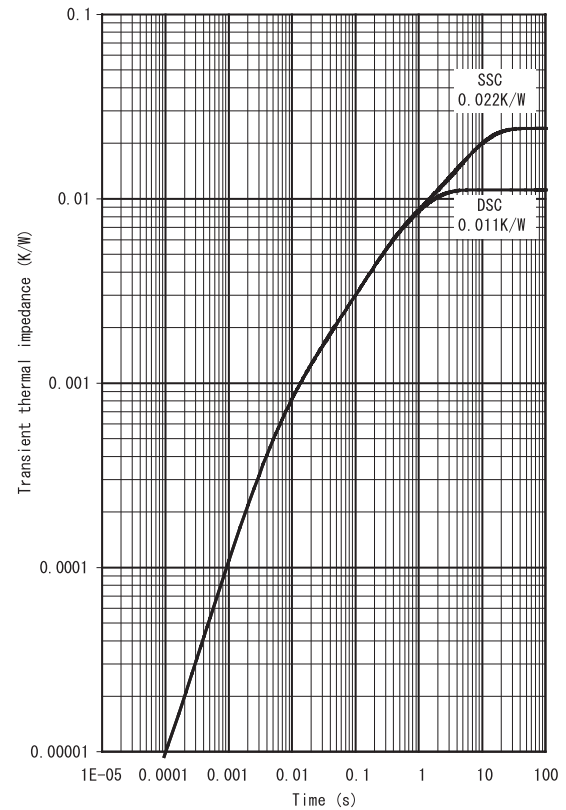


Figure 3 – Gate Characteristics – Trigger Limits

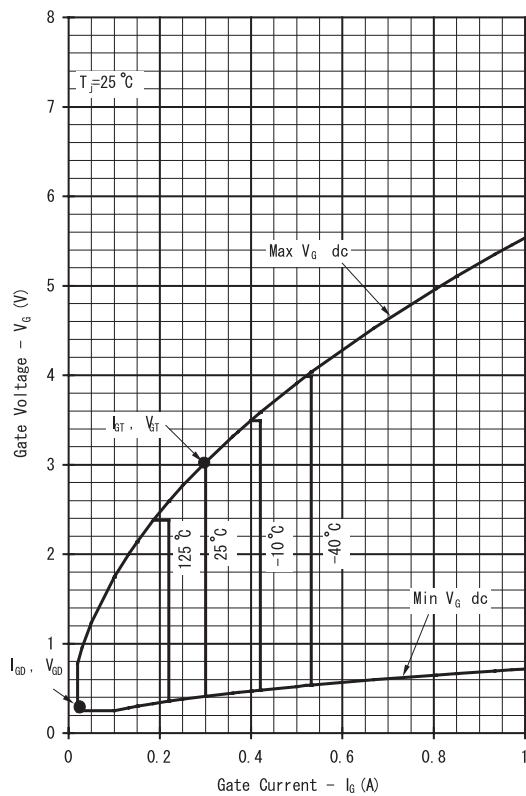


Figure 4 – Gate Characteristics – Power Curves

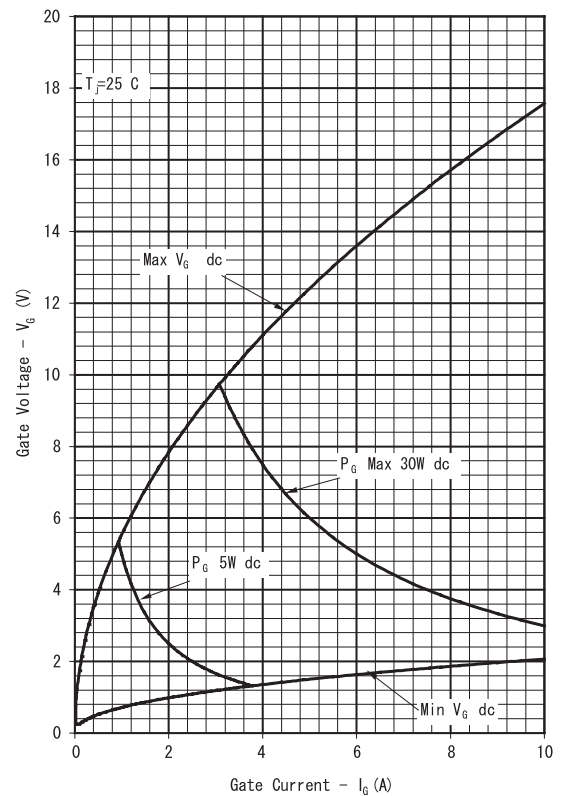


Figure 5 –Recovered Charge, Q_{rr}

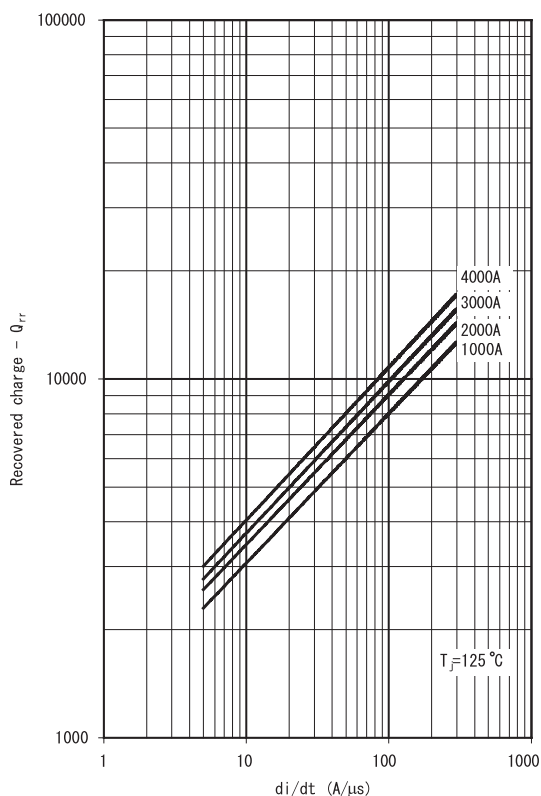


Figure 6–Recovered charge, Q_{ra} (50% chord)



Figure 7 –Reverse recovery current, I_{rm}

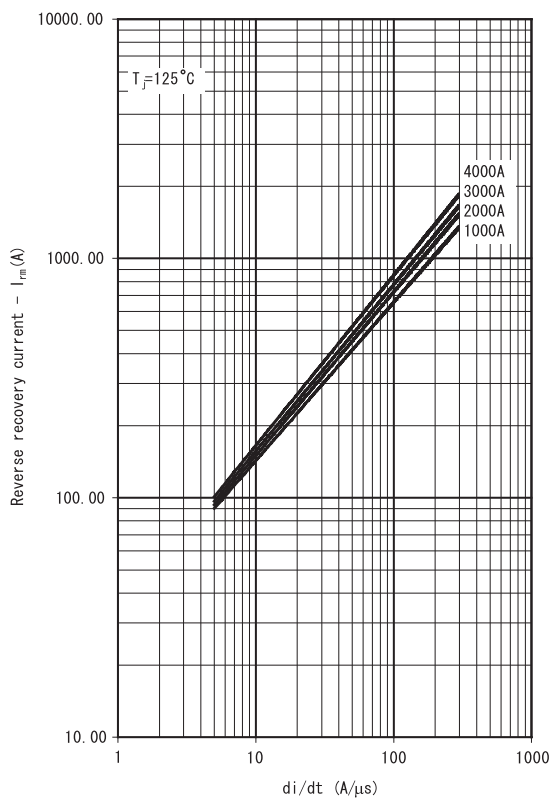


Figure 8 –Reverse recovery time, t_{rr} (50% chord)

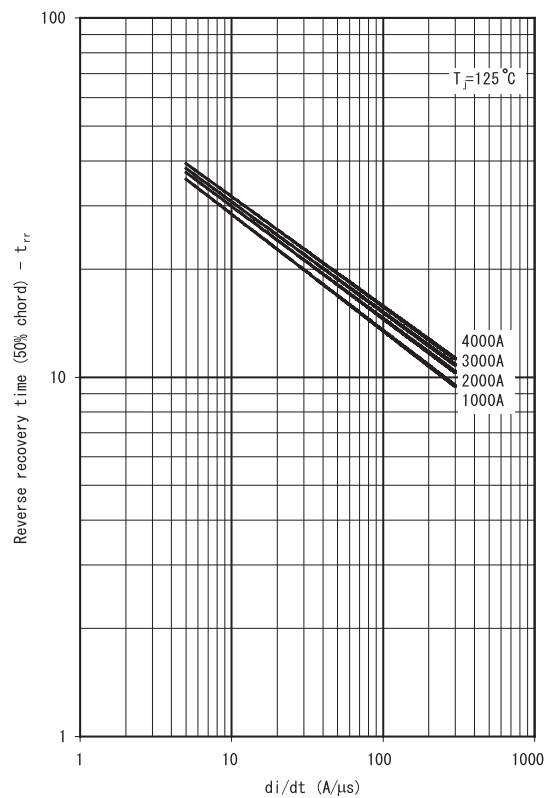


Figure 9 -On-state current vs. Power dissipation - Double Side Cooled (Sine wave)

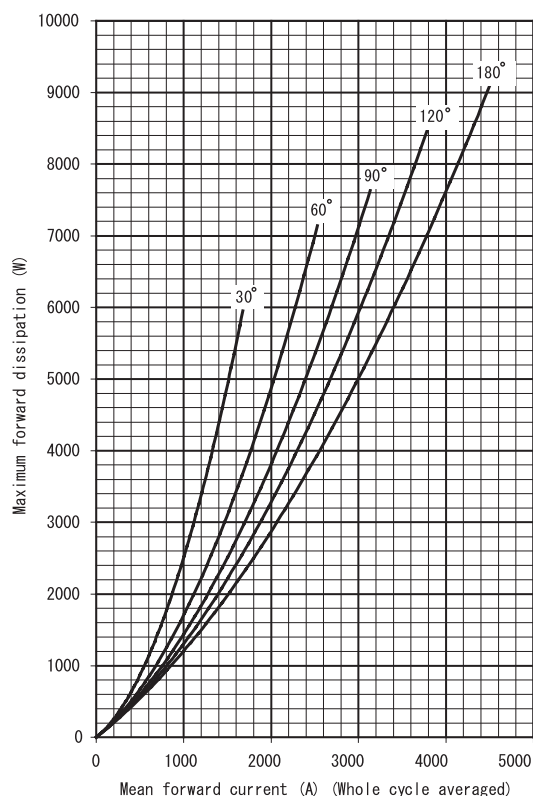


Figure 10 -On-state current vs. Heatsink temperature - Double Side Cooled (Sine wave)

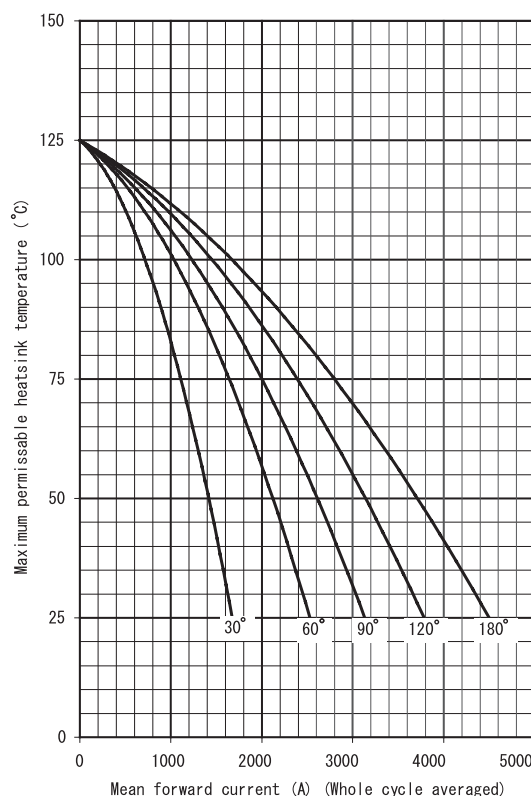


Figure 11 -On-state current vs. Power dissipation - Double Side Cooled (Square wave)

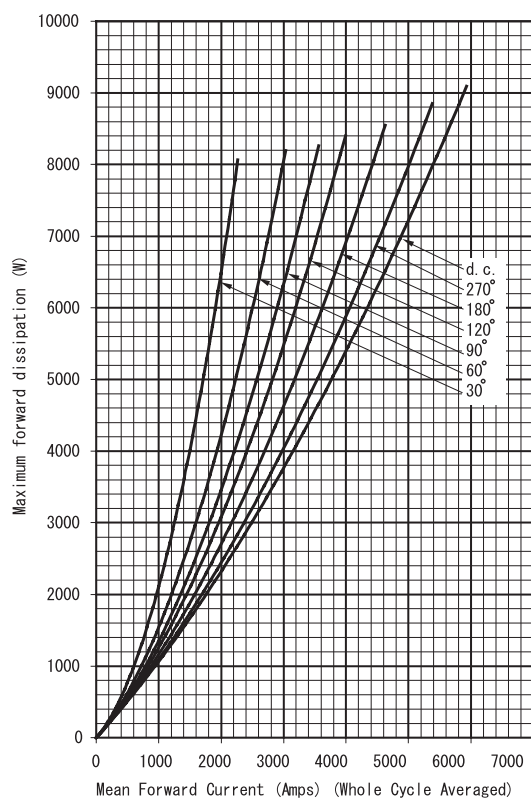


Figure 12 -On-state current vs. Heatsink temperature - Double Side Cooled (Square wave)

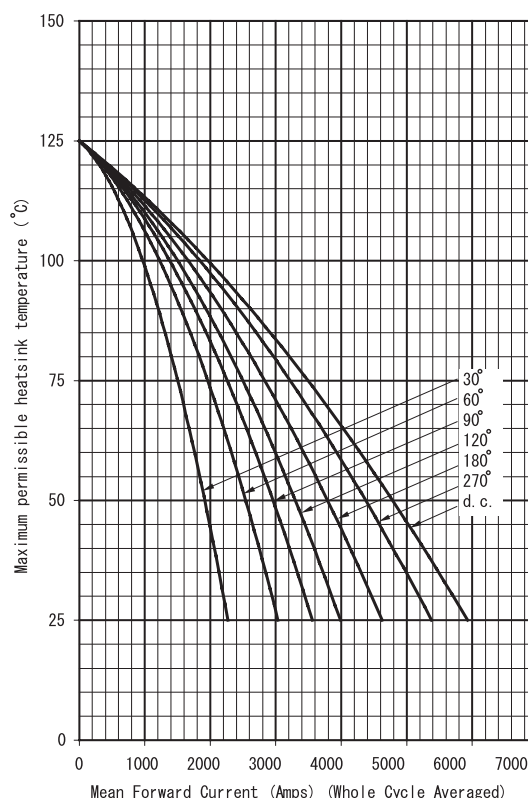


Figure 13 -On-state current vs. Power dissipation - Single Side Cooled (Sine wave)

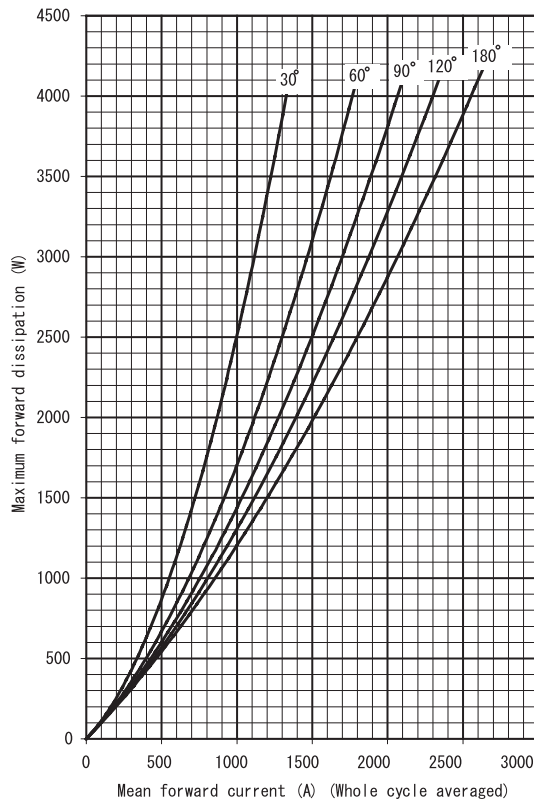


Figure 14 -On-state current vs. Heatsink temperature - Single Side Cooled (Sine wave)

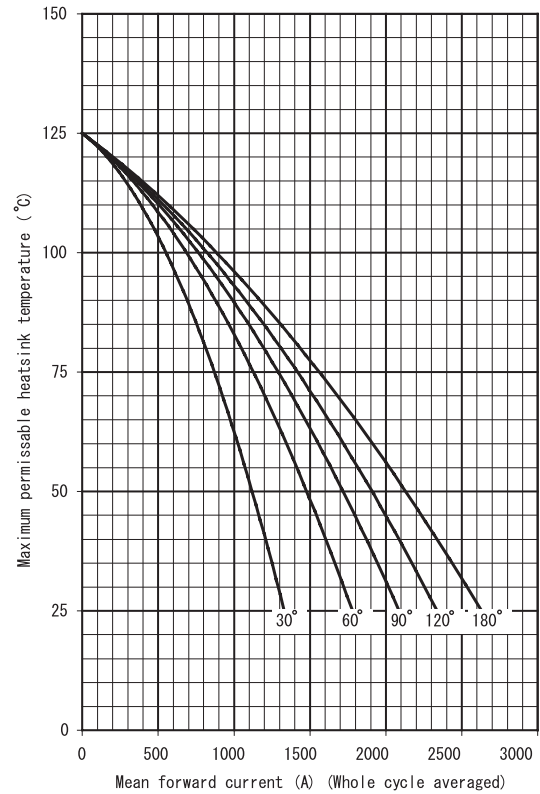


Figure 15 -On-state current vs. Power dissipation- Single Side Cooled (Square wave)

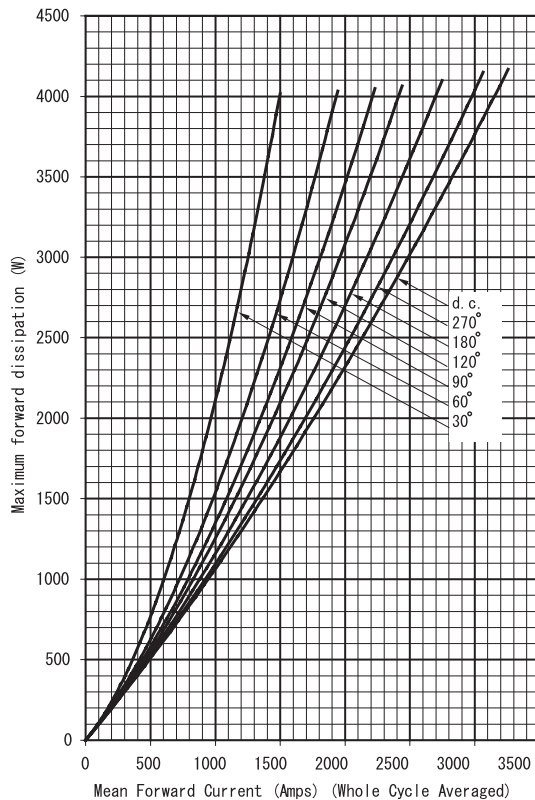


Figure 16 -On-state current vs. Heatsink temperature - Single Side Cooled (Square wave)

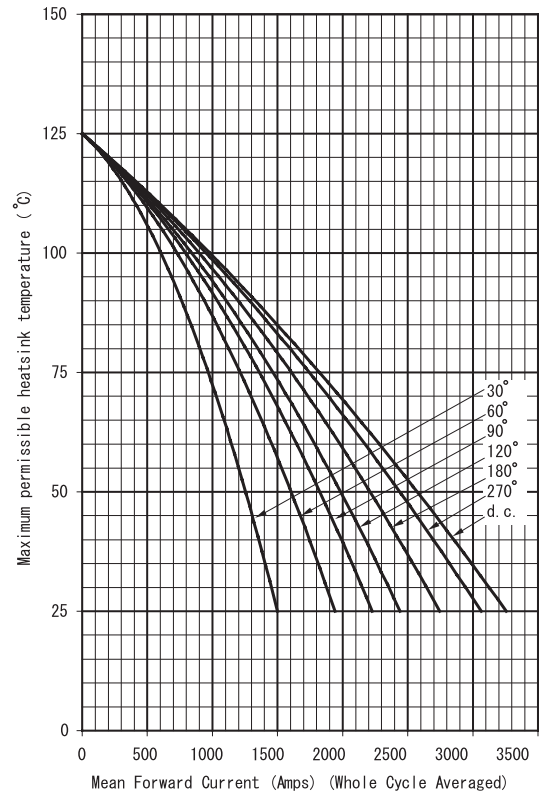


Figure 17 -Maximum surge and I^2t Ratings

