

Feature

- Full diffusion process
- Capsule type ceramic package
- Double side cooling

Typical Application

- High power transmission
- Welding equipment
- Motor control and drive
- Battery charger

$I_{F(AV)}$	4000A
V_{RRM}	100-5000V
I_{FSM}	64 KA
I^2t	$18000 \ 10^3 a^2s$

SYMBOL	CHARACTERISTIC	TEST CONDITIONS	T_J (°C)	VALUE		UNIT
				Min	Max	
$I_{F(AV)}$	Mean forward current	180° half sine wave 50Hz Double side cooled, THS=97°C	150		4000	A
V_{RRM}	Repetitive peak reverse voltage	$V_{DRM} \& V_{RRM} \ t_p=10ms$ $V_{DSM} \& V_{RSM}=V_{DRM} \& V_{RRM}+100V$	150	100	5000	V
I_{RRM}	Repetitive peak current	$V_{RM}=V_{RRM}$	150		200	mA
I_{TSM}	Surge on-state current	10ms half sine wave $V_R=0.6V_{RRM}$	150		64	KA
I^2t	I^2t for fusing coordination				1800	A^{2S*1}
V_{FO}	Threshold voltage		150		0.76	V
r_T	On-state slop resistance				0.008	mΩ
V_{FM}	Peak on-state voltage	$I_{TM}=5000A, F=15KN$	25		2.0	V
I_{RM}	Reverse recovery current	$I_{TM}=5000A, \ t_q=1000us$ $Di/dt=-20A/us.$ $V_f=50V$	150		160	A
t_{rr}	Reverse recovery time				10	us
Q_{rr}	Recovery charge				800	uC
$R_{th(j-h)}$	Thermal resistance Junction to heat sink	At180° sine double side cooled Clamping force 5.0kn			0.009	°C/W
F_M	Mounting force			70	95	KN
T_{stq}	Stored temperature			-40	190	°C
W_t	Weight					g
Outline						

Peak forward Voltage Vs. Peak forward Current

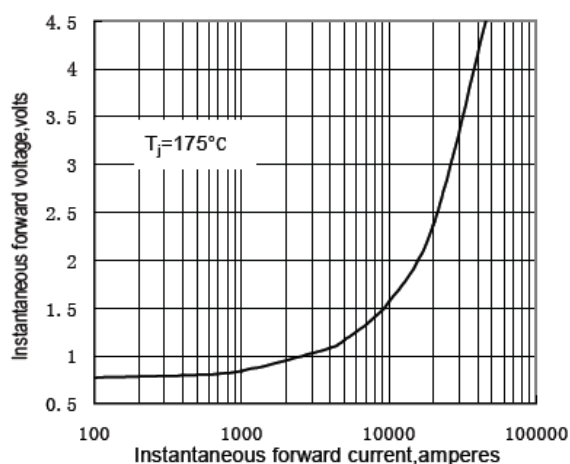


Fig.1

Max. junction To heatsink Thermal Impedance Vs. Time

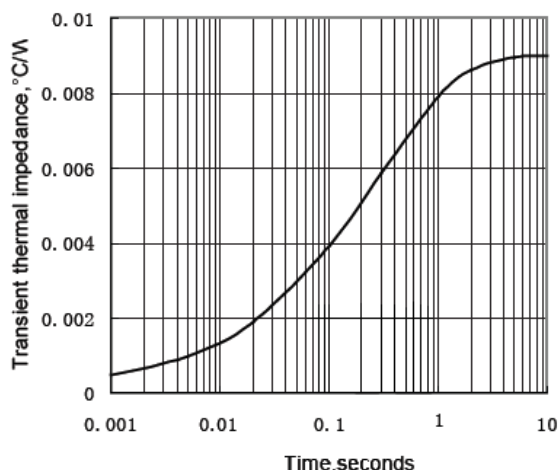


Fig.2

Max. Power Dissipation Vs. Mean forward Current

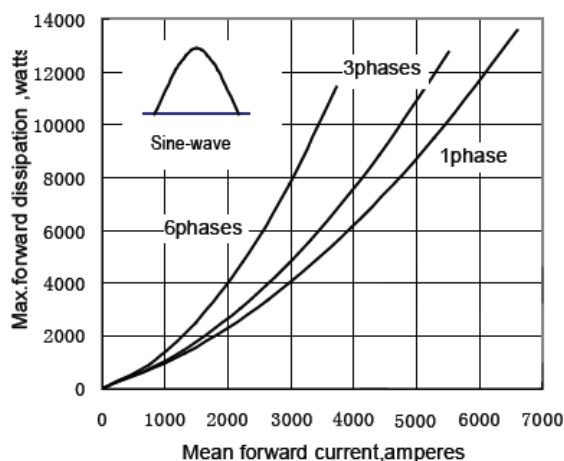


Fig.3

Max. heatsink Temperature Vs. Mean On-state Current

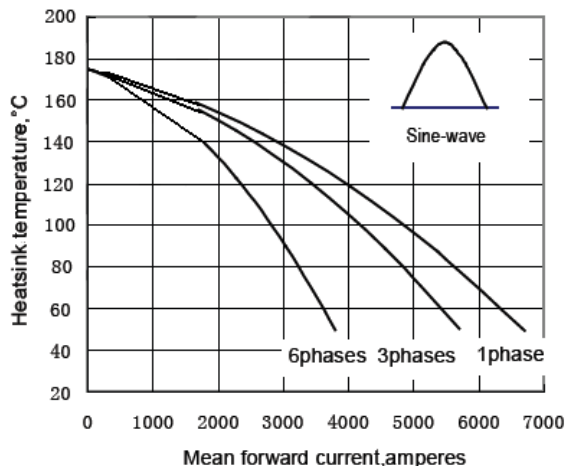


Fig.4

Max. Power Dissipation Vs. Mean On-state Current

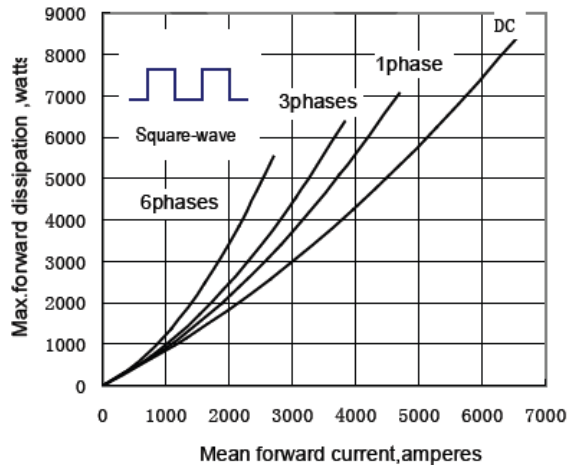


Fig.5

Max. heatsink Temperature Vs. Mean forward Current

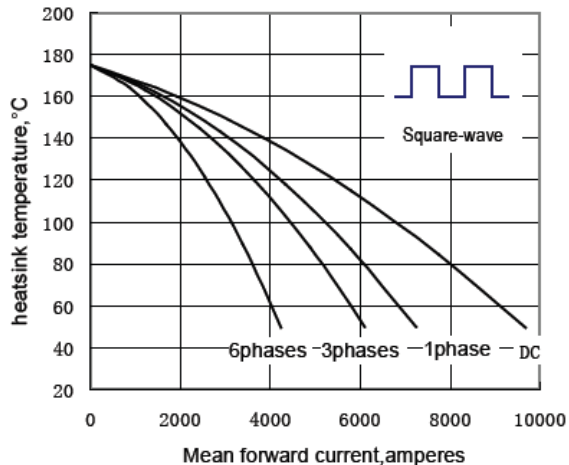


Fig.6

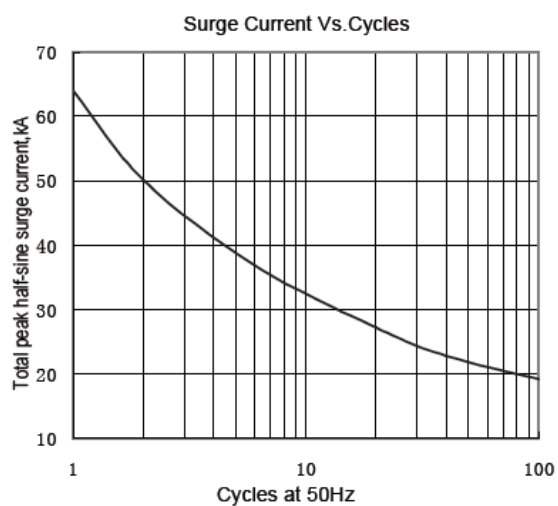


Fig.7

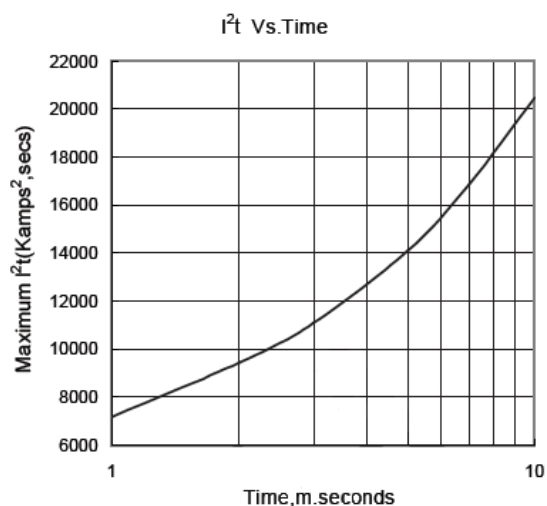
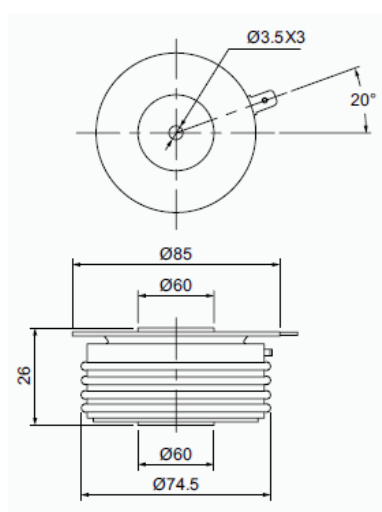
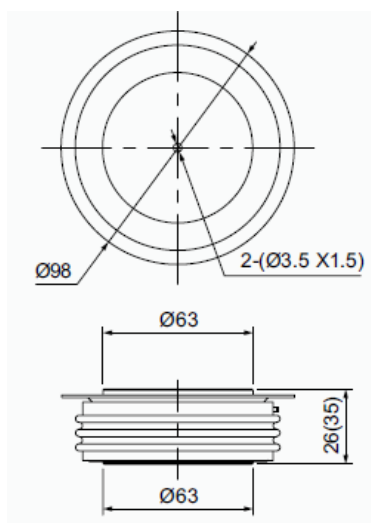


Fig.8

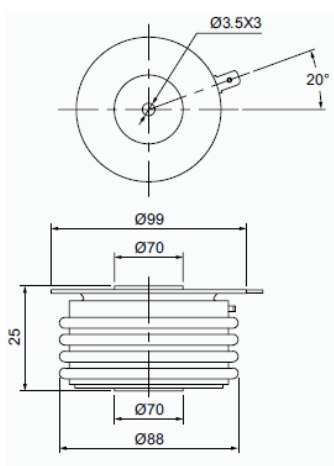
Outline:



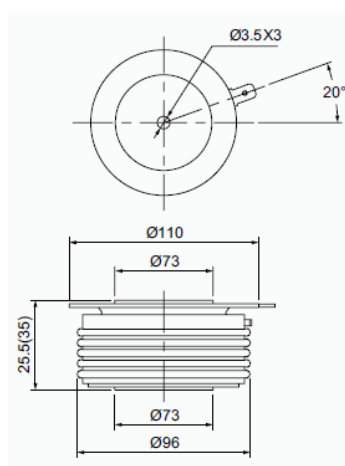
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