Features

- Low forward voltage drop
- High reverse voltage
- Hermetic metal cases with ceramic insulators

Typical Applications

- All purpose high power rectifier diodes
- High power resistance welding equipment
- Non-controllable and half-controllable rectifiers
- Controlled rectifiers

$I_{F(AV)}$	3180A
V_{RRM}	200~1000 V
I_{FSM}	30 kA
I^2t	4500 10^3A^2S

SYMBOL	CHARACTERISTIC	TEST CONDITIONS		T_j(°C)	VALUE			UNIT
					Min	Type	Max	
$I_{F(AV)}$	Mean forward current	180° half sine wave 50Hz Double side cooled,	T_C=85°C	190			3180	A
V_{RRM}	Repetitive peak reverse voltage	tp=10ms		190	200		1000	V
I_{RRM}	Repetitive peak current	at V_{RRM}		190			80	mA
I_{FSM}	Surge forward current	10ms half sine wave V_R=0.6V_{RRM}		190			30	kA
I^2t	I^2t for fusing coordination						4500	A^2s*10^3
V_{FO}	Threshold voltage			190			0.79	V
r_F	Forward slope resistance						0.11	mΩ
V_{FM}	Peak forward voltage	I_{FM}=2000A, F=24kN		190			1.01	V
Q_{rr}	Recovery charge	I_{FM}=2000A,tp=2000μs, di/dt=-20A/μs, V_R=50V		190		3300		μC
$R_{th(j-c)}$	Thermal resistance Junction to case	At 180° sine double side cooled Clamping force 24.0 kN					0.020	°C /W
$R_{th(c-h)}$	Thermal resistance case to heat sink						0.005	
F_m	Mounting force				19		26	kN
T_{stg}	Stored temperature				-40		190	°C
W_t	Weight					440		g
Outline	P42							

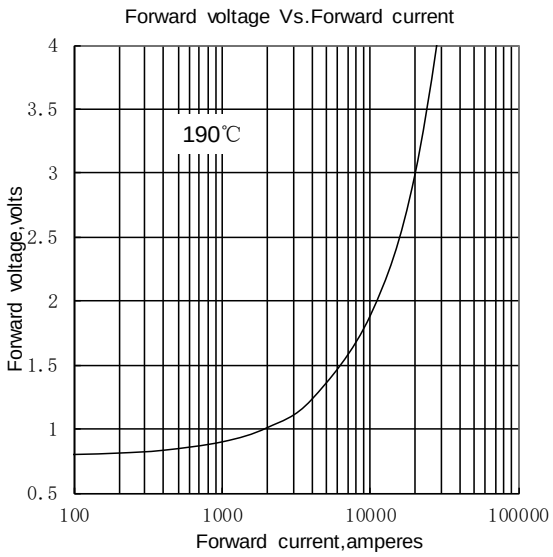


Fig.1

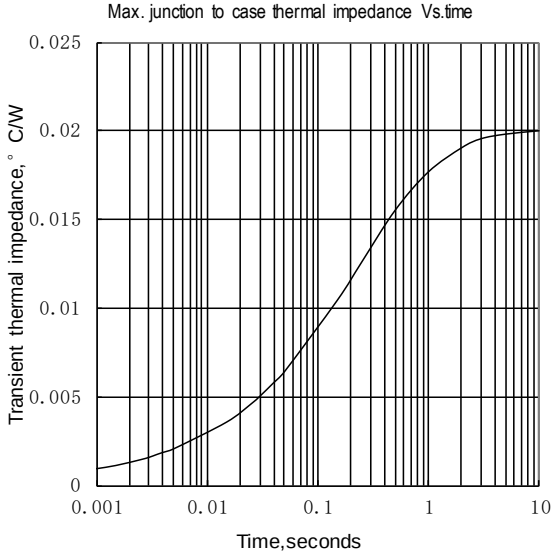


Fig.2

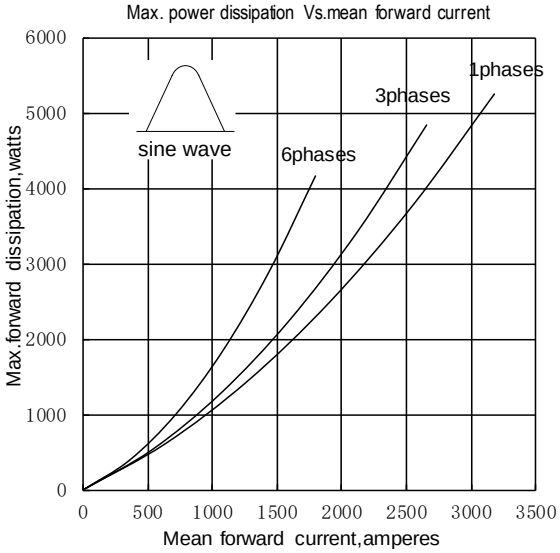


Fig.3

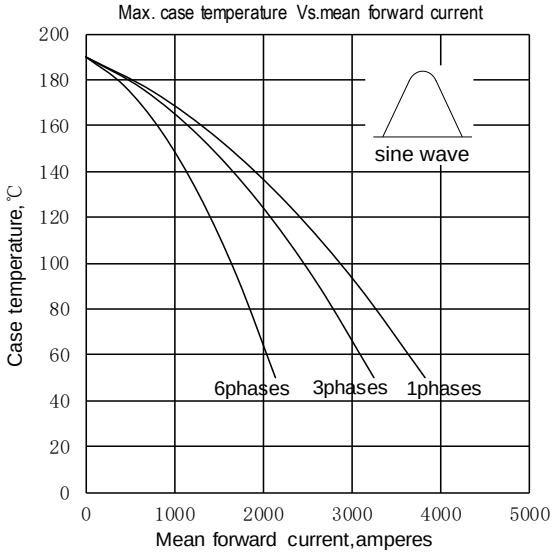


Fig.4

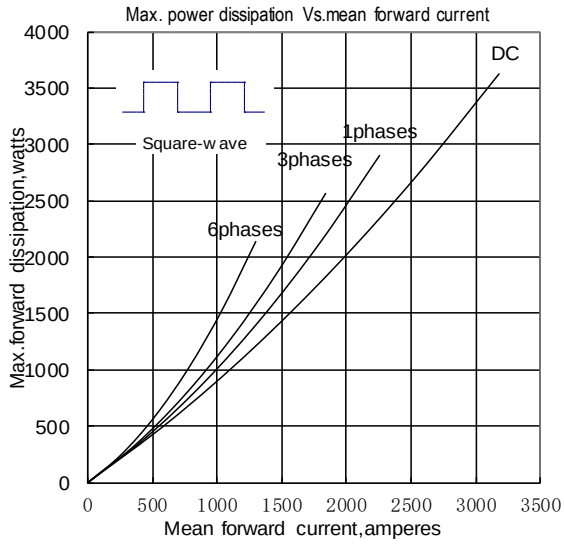


Fig.5

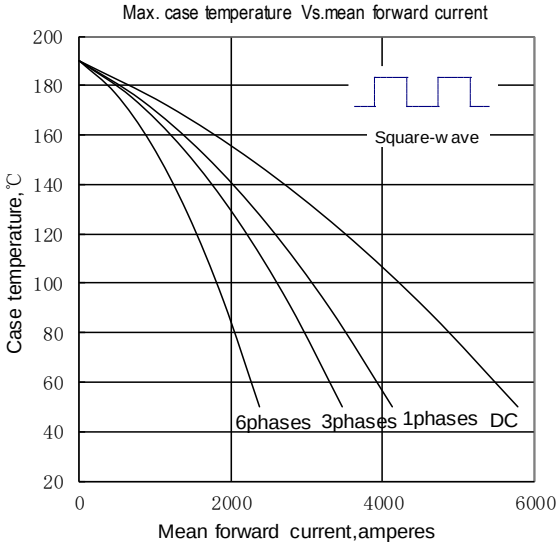


Fig.6

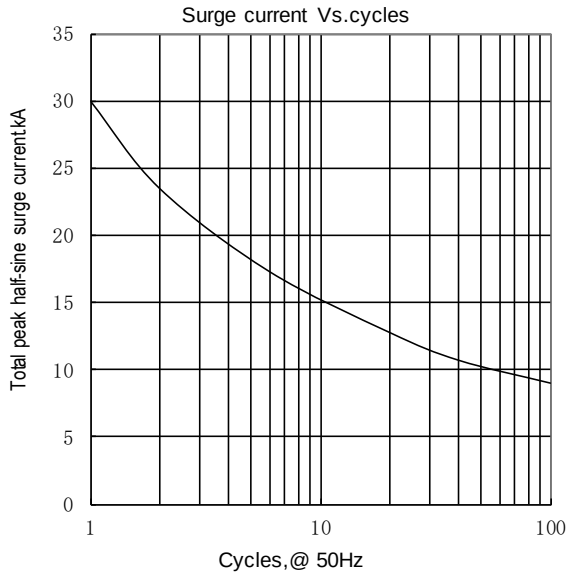

Surge current Vs.cycles
Total peak half-sine surge current:kA
35
30
25
20
15
10
5
0
1
10
100
Cycles,@ 50Hz

Fig.7

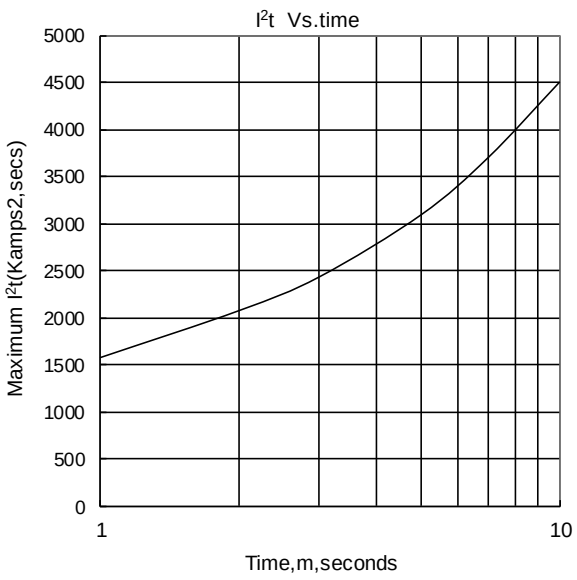
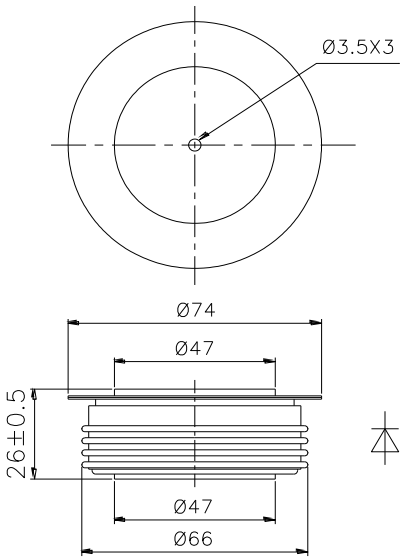

I²t Vs.time
Maximum I²t(Kamps2,secs)
5000
4500
4000
3500
3000
2500
2000
1500
1000
500
0
1
10
Time,m,seconds

Fig.8


Ø3.5X3
Ø74
Ø47
26±0.5
Ø47
Ø66