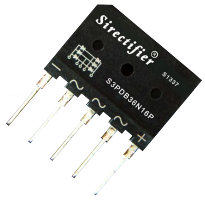
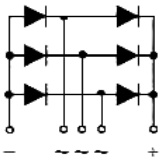
S3PDB36N16P

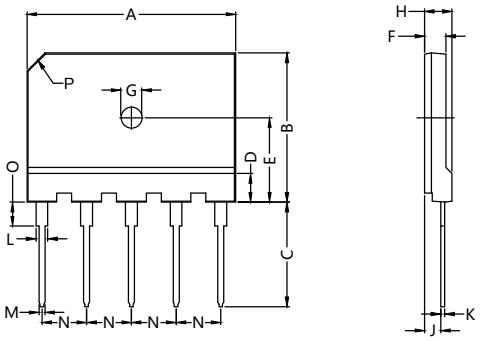
Three Phase Bridge Rectifiers





	V_{RRM} V	V_{RMS} V
S3PDB36N02P	300	200
S3PDB36N04P	500	400
S3PDB36N06P	700	600
S3PDB36N08P	900	800
S3PDB36N12P	1300	1200
S3PDB36N14P	1500	1400
S3PDB36N16P	1700	1600
S3PDB36N18P	1900	1800

Dimensions(mm)



Dim.	Millimeter	
	Min.	Max.
A	34.70	35.30
B	24.70	25.30
C	17.00	18.00
D	4.50	5.10
E	13.85	14.45
F	3.40	3.65
ØG	Ø3.1	Ø3.4
H	4.40	4.65
J	2.50	2.75
K	0.60	0.75
L	2.00	2.20
M	0.90	1.00
N	7.30	7.70
O	4.00	4.00
P	-	C3

Symbol	Test Conditions	Characteristic Values	Unit
$I_{(AV)}$	Maximum Average Forward(With Heatsink Note 2) Rectified Current @T_C=100°C(Without Heatsink)	36.0 5.0	A
I_{FSM}	Peak Forward Surge Current 8.3ms Single Half-Sine-Wave Superimposed On Rated Load (JEDEC METHOD)	350	A
V_F	I_F=36.0A;T_{VJ}=25 °C	1.10	V
I_R	Maximum DC Reverse Current @TJ=25 °C At Rated DC Blocking Voltage @TJ=125 °C	5 150	μA
I^2t	I^2t Rating For Fusing(t＜8.3ms)	640	A^2S
C_J	Typical Junction Capacitance Per Element	48	pF
R_{thJC}	Per module	0.80	°C/W
T_J	Operating Temperature Range	-55...+150	°C
T_{stg}	Storage Temperature Range	-55...+150	°C

FEATURES

* Rating to 1800V PRV
* Ideal for printed circuit board
* Low forward voltage drop, high current capability
* Reliable low cost construction utilizing molded plastic technique results in inexpensive product
* UL File E310749
* RoHS Compliant

MECHANICAL DATA

* Polarity:Symbols molded on body
* Weight:0.338 ounces, 9.6 grams
* Mounting position:Any

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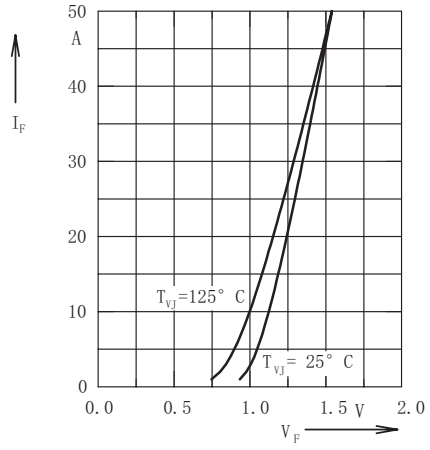

Fig.1 Forward current versus voltage drop per diode

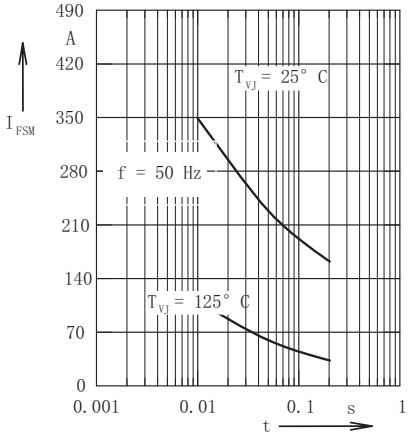

Fig.2 Surge overload current

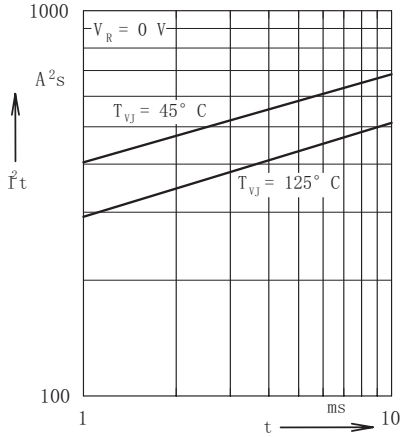

Fig.3 I^2t versus time per diode

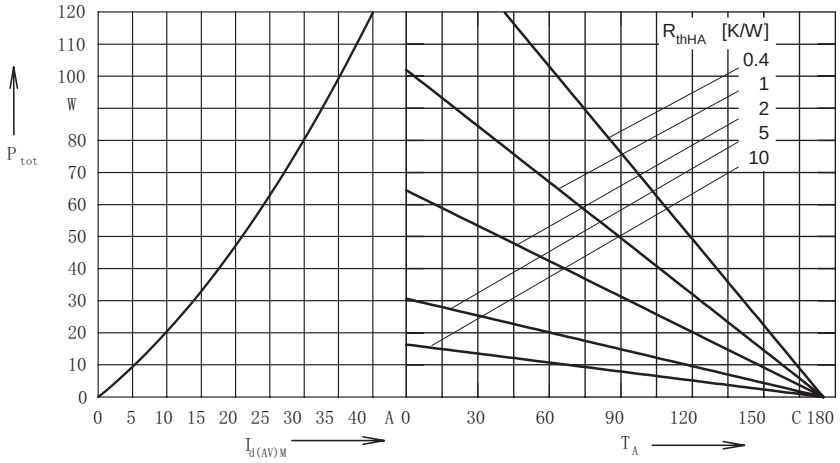

Fig.4 Power dissipation versus direct output current and ambient tempreature, sine 180

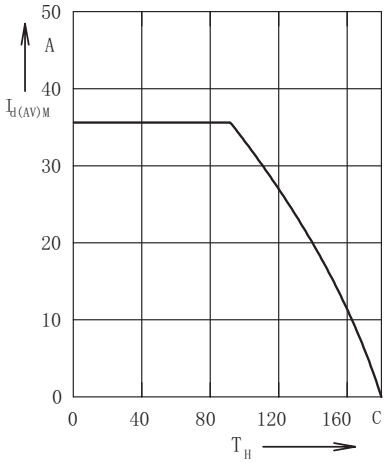

Fig.5 Max. forward current vs. case temperature

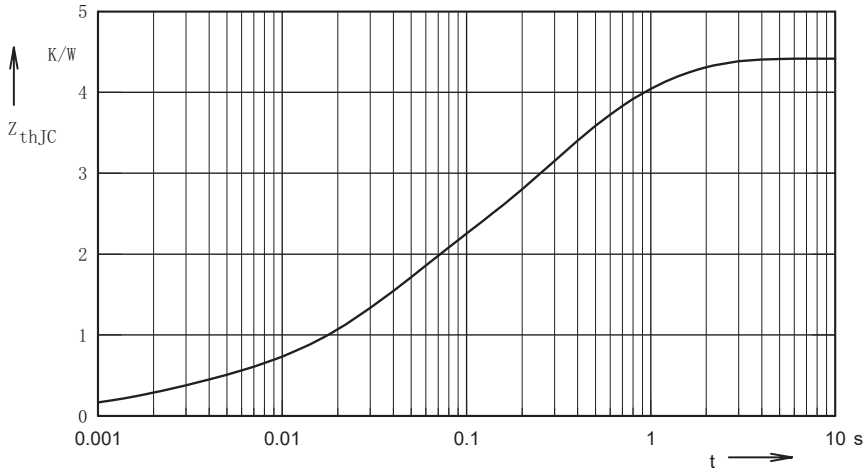

Fig.6 Transient thermal impedance junction to case

Constants for $Z_{th}JC$ calculation:

i	R_{thi} (K/W)	t_i(s)
1	0.310	0.002
2	1.281	0.032
3	2.158	0.1
4	2.837	0.2

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