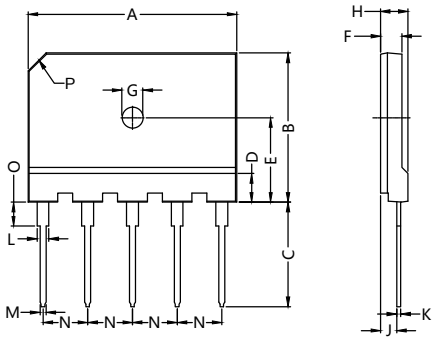
S3PDB24N**PAV

Three Phase Bridge Rectifiers

AVALANCHE DIODE INSIDE

	V_{RSM} V	V_{RRM} V
S3PDB24N08PAV	900	800
S3PDB24N12PAV	1300	1200
S3PDB24N14PAV	1500	1400
S3PDB24N16PAV	1700	1600
S3PDB24N18PAV	1900	1800
S3PDB24N20PAV	2100	2000

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) Rectified Current @T_C=100°C(Without Heatsink)	24.0 5.0	A
I_{FSM}	Peak Forward Surge Current 8.3ms Single Half-Sine-Wave Superimposed On Rated Load (JEDEC METHOD)	200	A
P_{RSM}	Per diode chip,T_{VJ}=25°C,t_p=10μs	4.0	KW
VF	I_F=24.0A;T_{VJ}=25°C	1.20	V
IR	Maximum DC Reverse Current At @T_J=25°C Rated DC Blocking Voltage @T_J=125°C	5 150	μA
I^2t	I^2t Rating For Fusing(＜8.3ms)	400	A^2S
V_{ISO}	RMS 1min	2500	VAC
R_{thJC}	Per module	0.96	°C/W
T_J	Operating Temperature Range	-40...+180	°C
T_{stg}	Storage Temperature Range	-40...+180	°C
Md	Mounting Torque (M3)	0.5~0.8	Nm

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
* Avalanche Diode dies inside

MECHANICAL DATA

* Polarity:Symbols molded on body
* Weight:0.23 ounces,6.6 grams
* Mounting position:Any

RoHS Compliant

E310749

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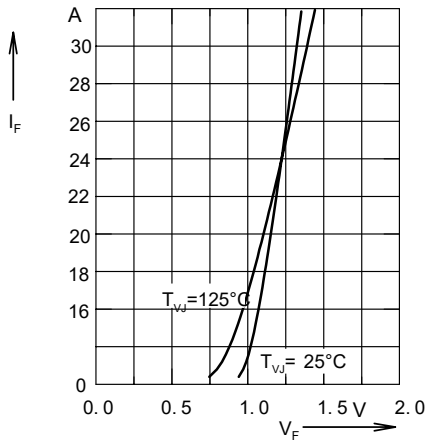

Fig. 1 Forward current versus voltage drop per diode

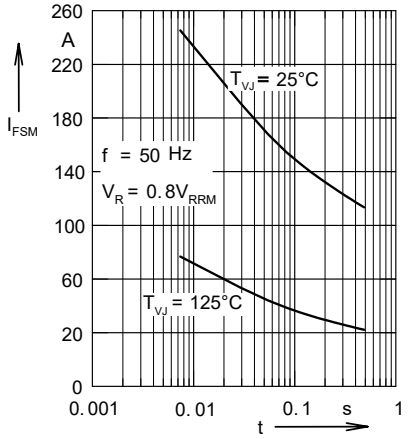

Fig. 2 Surge overload current

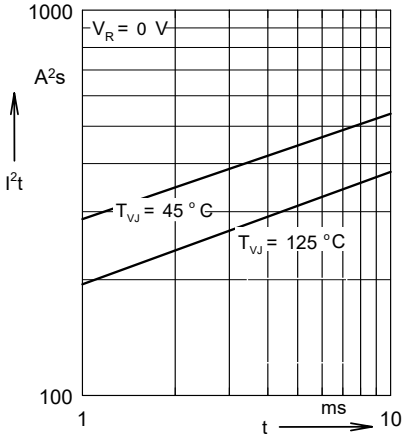

Fig. 3 I^2t versus time per diode

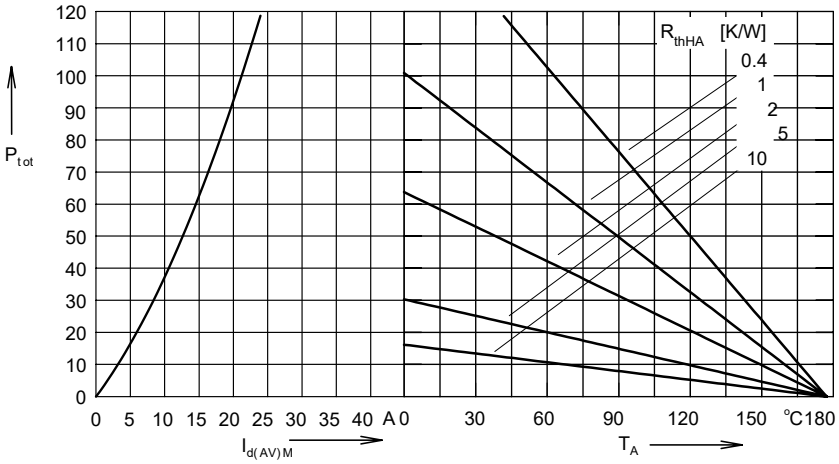

Fig. 4 Power dissipation versus direct output current and ambient temperature, sine 180

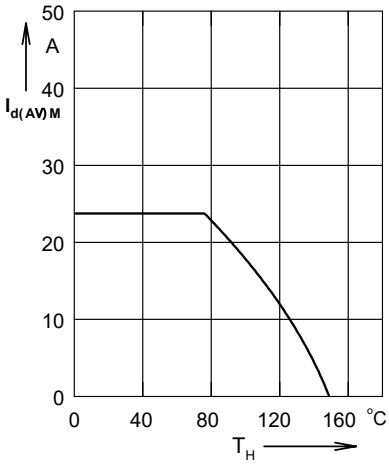

Fig. 5 Max. forward current vs. case temperature

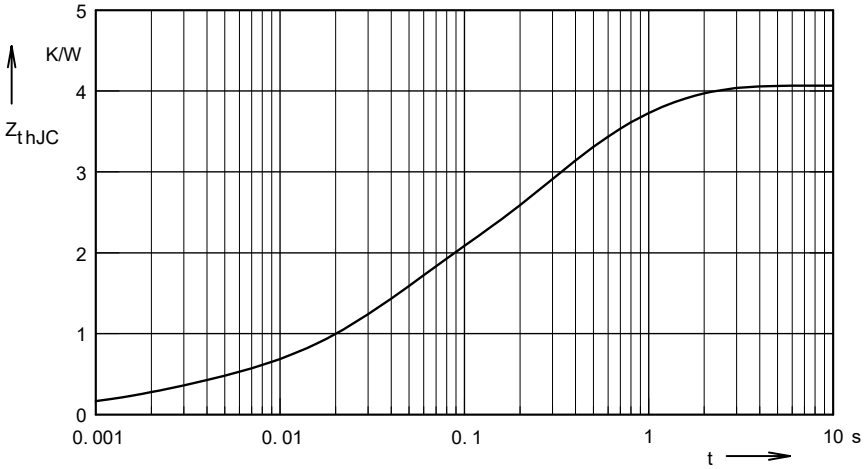

Fig. 6 Transient the rmal impedance junction to case

Constants for Z_{th}JC calculation:

i	R_{thi} (K/W)	t_i (s)
1	0.302	0.002
2	1.252	0.032
3	1.582	0.227
4	1.164	0.82

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