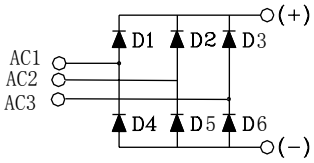
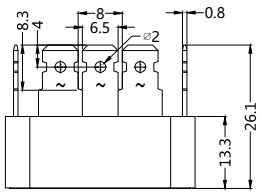
S3PDB40N

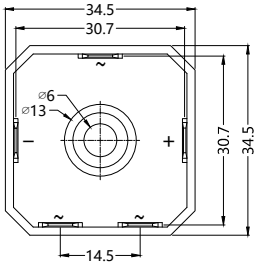
Three Phase Bridge Rectifiers



Type	V_{RSM} V	V_{RRM} V
S3PDB40N06	700	600
S3PDB40N08	900	800
S3PDB40N12	1300	1200
S3PDB40N14	1500	1400
S3PDB40N16	1700	1600
S3PDB40N18	1900	1800

Dimensions in mm (1mm=0.0394")





Symbol	Test Conditions		Maximum Ratings	Unit
I_{dav}	T_C=55 °C, module		40	A
I_{FSM}	T_{VJ}=45°C V_R=0	t=10ms (50Hz), sine t=8.3ms (60Hz), sine	760 910	A
	T_{VJ}=T_{VJM} V_R=0	t=10ms(50Hz), sine t=8.3ms(60Hz), sine	640 770	
I^2t	T_{VJ}=45°C V_R=0	t=10ms (50Hz), sine t=8.3ms (60Hz), sine	2480 2500	A^2s
	T_{VJ}=T_{VJM} V_R=0	t=10ms(50Hz), sine t=8.3ms(60Hz), sine	1760 2110	
T_{VJ} T_{VJM} T_{stg}			-55...+150 150 -55...+125	°C
V_{ISOL}	50/60Hz, RMS I_{ISOL}≤1mA	t=1min t=1s	2500 3000	V~
M_d	Mounting torque (M4)		-2 + 15%	Nm
Weight	typ.		22	g

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Symbol	Test Conditions	Characteristic Values	Unit
I_R	$V_R=V_{RRM}$; $T_{VJ}=25^oC$ $V_R=V_{RRM}$; $T_{VJ}=T_{VJM}$	≤100 ≤1000	uA
V_F	I_F=40A; $T_{VJ}=25^oC$	≤1.15	V
V_{TO}	For power-loss calculations only	0.8	V
r_T	$T_{VJ}=T_{VJM}$	3.821	mΩ
R_{thJC}	per diode per module		K/W
R_{thJK}	per diode per module		K/W
d_S	Creeping distance on surface		mm
d_A	Creepage distance in air	9.4	mm
a	Max. allowable acceleration	50	m/s^2

FEATURES

* Rating to 1800V PRVHigh efficiency
*Glass passivated chip junction
*Electrically isolated metal case
*for maximum heat dissipation

APPLICATIONS

* Supplies for DC power equipmen
* Input rectifiers for PWM inverte
* Battery DC power supplie
* Field supply for DC motor

ADVANTAGES

* Easy to mount with two screw
* Space and weight saving
* Improved temperature and powe cycling

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Three Phase Bridge Rectifiers

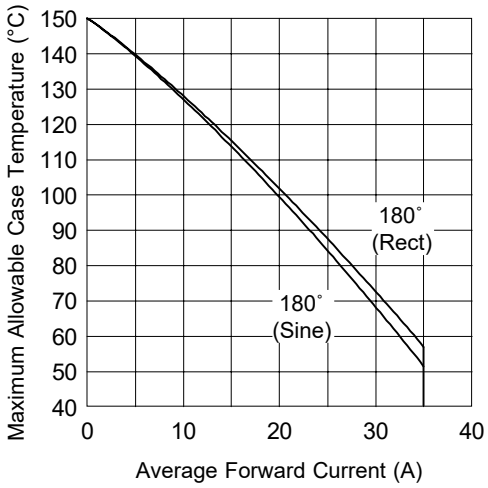

Fig. 1 - Current Ratings Characteristics

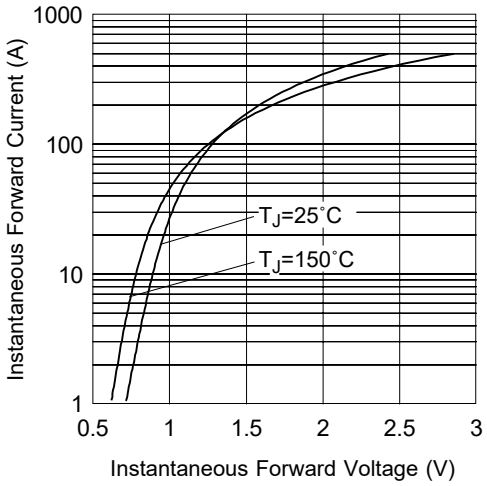

Fig. 2 - Forward Voltage Drop Characteristics

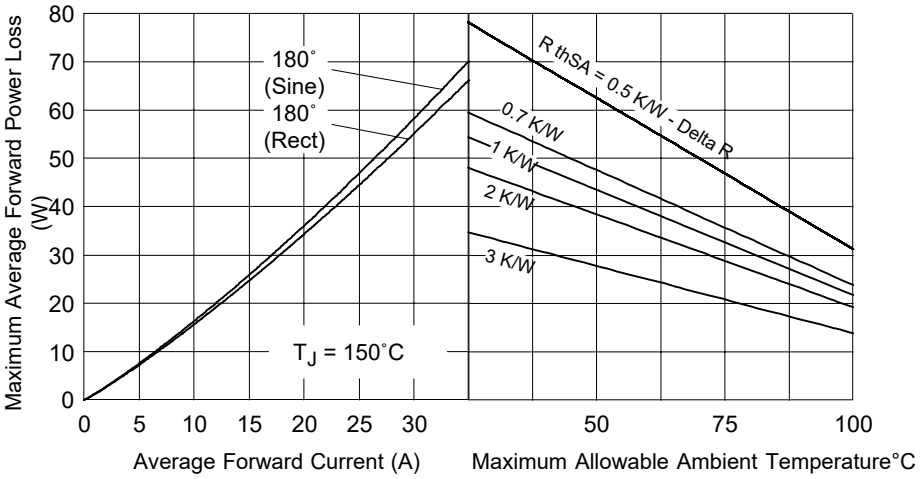

Fig. 3 - Total Power Loss Characteristics

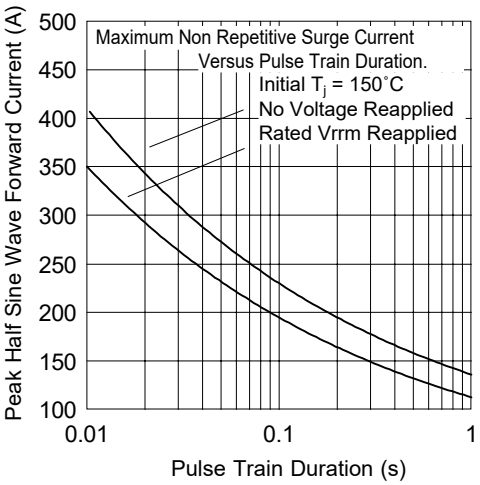

Fig. 4 - Maximum Non-Repetitive Surge Current

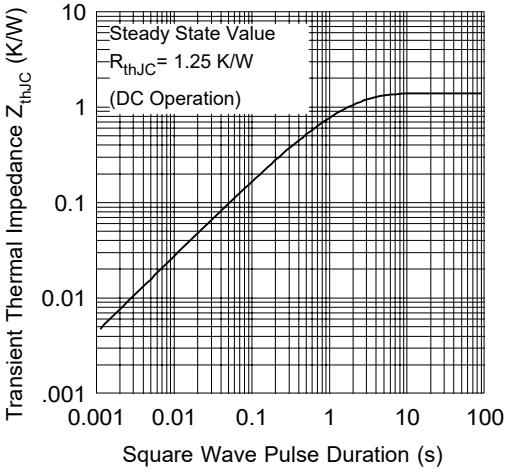

Fig. 5- Thermal Impedance Z_{thJC} Characteristic

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