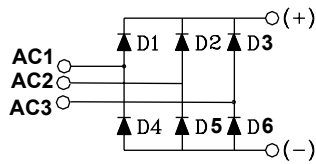


S3PDB35N

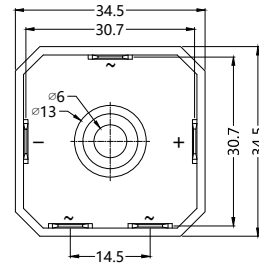
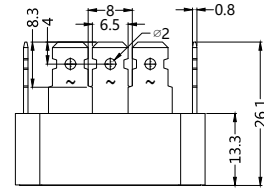
Three Phase Bridge Rectifiers



Dimensions in mm (1mm=0.0394")



Type	V_{RSM} V	V_{RRM} V
S3PDB35N06	700	600
S3PDB35N08	900	800
S3PDB35N12	1300	1200
S3PDB35N14	1500	1400
S3PDB35N16	1700	1600



Symbol	Test Conditions	Maximum Ratings	Unit
I_{dav}	$T_C=55^\circ\text{C}$, module	35	A
I_{FSM}	$T_{VJ}=45^\circ\text{C}$ $V_R=0$ $t=10\text{ms}$ (50Hz), sine $t=8.3\text{ms}$ (60Hz), sine	310 400	A
	$T_{VJ}=T_{VJM}$ $V_R=0$ $t=10\text{ms}$ (50Hz), sine $t=8.3\text{ms}$ (60Hz), sine	275 350	
I^2t	$T_{VJ}=45^\circ\text{C}$ $V_R=0$ $t=10\text{ms}$ (50Hz), sine $t=8.3\text{ms}$ (60Hz), sine	1350 1200	A^2s
	$T_{VJ}=T_{VJM}$ $V_R=0$ $t=10\text{ms}$ (50Hz), sine $t=8.3\text{ms}$ (60Hz), sine	1130 1030	
T_{VJ} T_{VJM} T_{stg}		-55...+150 150 -55...+125	$^\circ\text{C}$
V_{ISOL}	50/60Hz, RMS $I_{ISOL}\leq 1\text{mA}$ $t=1\text{min}$ $t=1\text{s}$	2500 3000	V~
M_d	Mounting torque (M4)	$2 \pm 15\%$	Nm
Weight	typ.	22	g

Sirectifier®

S3PDB35N

Three Phase Bridge Rectifiers

Symbol	Test Conditions	Characteristic Values	Unit
I_R	V _R =V _{RRM} ; T _{VJ} =25°C V _R =V _{RRM} ; T _{VJ} =T _{VJM}	≤ 5 ≤ 1000	uA
V_F	I _F =12A; T _{VJ} =25°C	≤ 1.1	V
V_{TO}	For power-loss calculations only	0.8	V
r_T	T _{VJ} =T _{VJM}	3.867	mΩ
R_{thJC}	per diode per module	1.3 0.325	K/W
R_{thJK}	per diode per module	1.5 0.375	K/W
d_s	Creeping distance on surface	10	mm
d_A	Creepage distance in air	9.4	mm
a	Max. allowable acceleration	50	m/s ²

FEATURES

- * Rating to 1600V PRV
- * High efficiency
- * Glass passivated chip junction
- * Electrically isolated metal case for maximum heat dissipation

APPLICATIONS

- * Supplies for DC power equipment
- * Input rectifiers for PWM inverter
- * Battery DC power supplies
- * Field supply for DC motors

ADVANTAGES

- * Easy to mount one screw
- * Space and weight savings
- * Improved temperature and power cycling

S3PDB35N

Three Phase Bridge Rectifiers

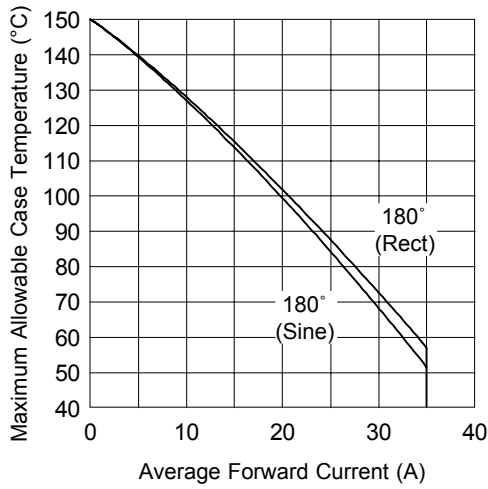


Fig. 1 - Current Ratings Characteristics

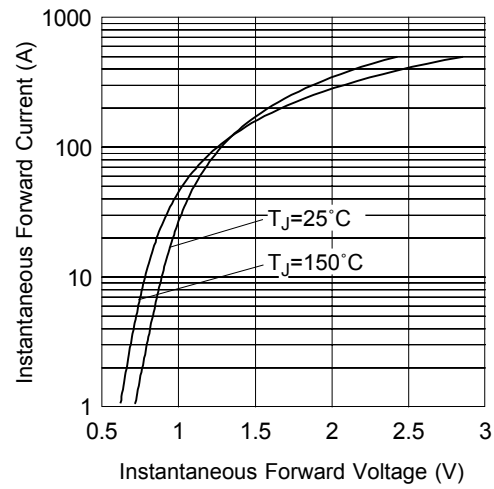


Fig. 2 - Forward Voltage Drop Characteristics

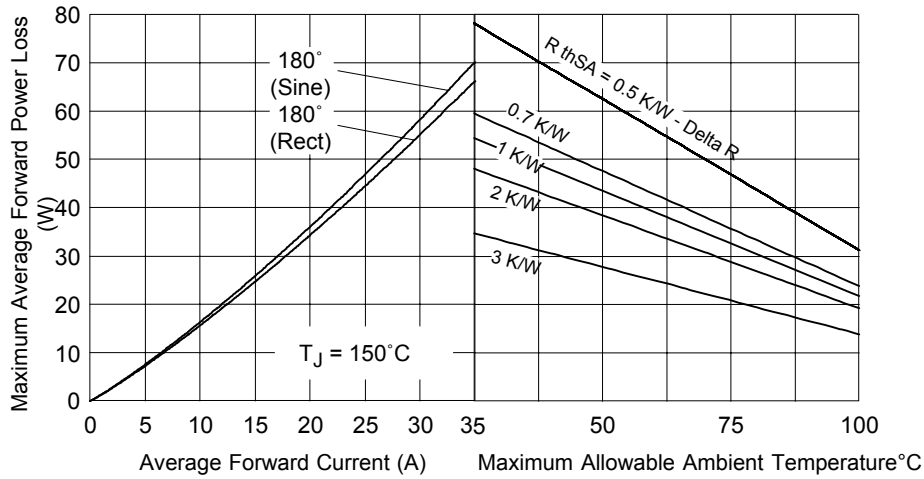


Fig. 3 - Total Power Loss Characteristics

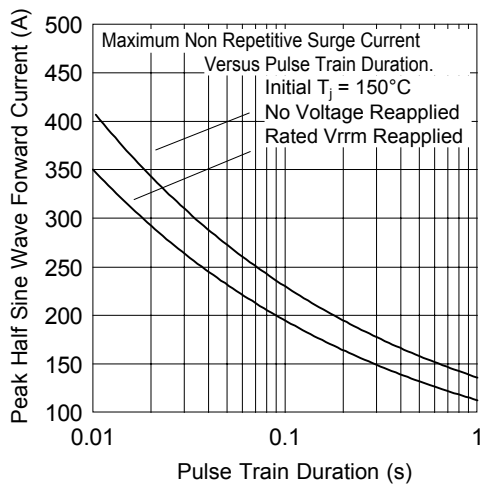


Fig. 4 - Maximum Non-Repetitive Surge Current

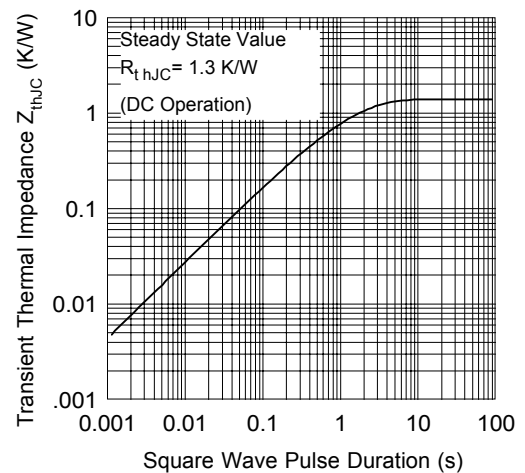


Fig. 5 - Thermal Impedance Z_{thJC} Characteristic