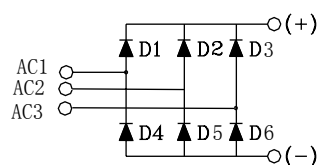
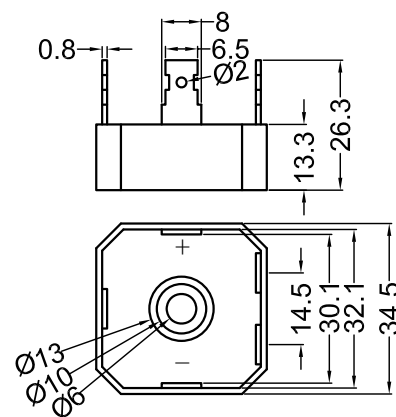


S3PDB35NXX

Three Phase Bridge Rectifiers



Dimensions in mm (1mm=0.0394")



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



S3PDB35NXX

Three Phase Bridge Rectifiers

Symbol	Test Conditions	Characteristic Values	Unit
I_R	$V_R = V_{RRM}; T_{VJ} = 25^{\circ}\text{C}$ $V_R = V_{RRM}; T_{VJ} = T_{VJM}$	≤ 5 ≤ 1000	μA
V_F	$I_F = 12\text{A}; T_{VJ} = 25^{\circ}\text{C}$	≤ 1.1	V
V_{TO}	For power-loss calculations only	0.8	V
r_T	$T_{VJ} = T_{VJM}$	3.867	$\text{m}\Omega$
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

Sirectifier[®]

S3PDB35NXX

Three Phase Bridge Rectifiers

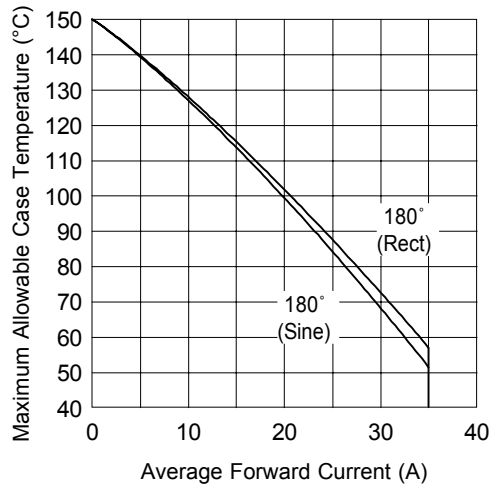


Fig. 1 - Current Ratings Characteristics

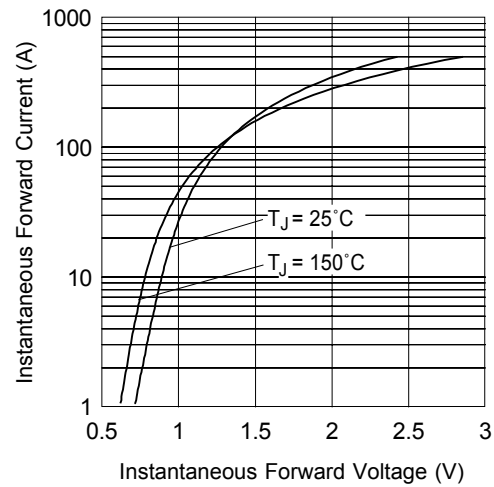


Fig. 2 - Forward Voltage Drop Characteristics

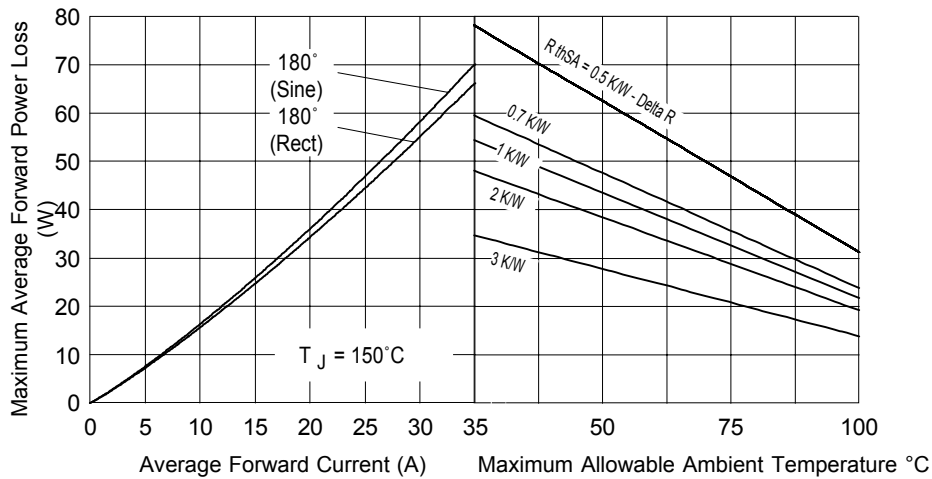


Fig. 3 - Total Power Loss Characteristics

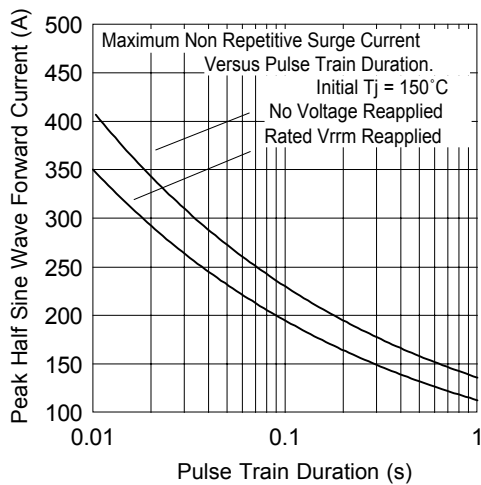


Fig. 4 - Maximum Non-Repetitive Surge Current

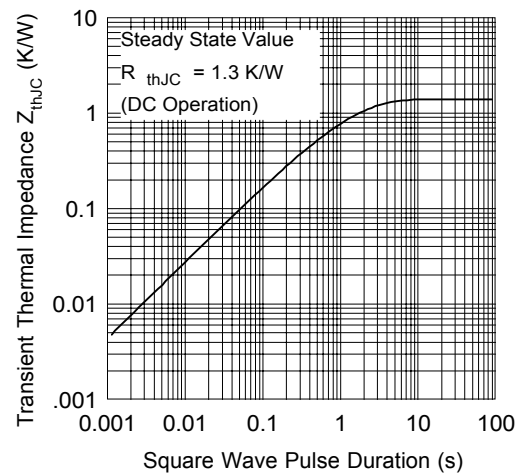


Fig. 5- Thermal Impedance Z_{thJC} Characteristic

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