

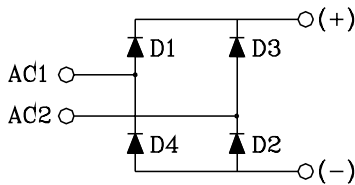
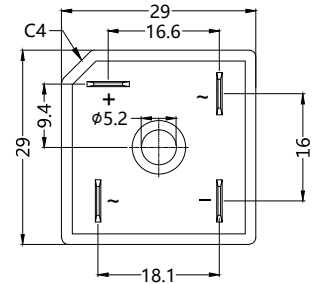
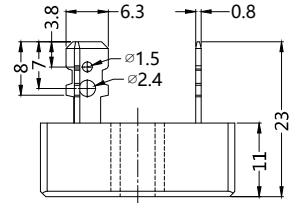
S1PDB35

Single Phase Bridge Rectifiers



Type	V _{RSM} V	V _{RRM} V
S1PDB3502	300	200
S1PDB3504	500	400
S1PDB3506	700	600
S1PDB3508	900	800
S1PDB3510	1100	1000
S1PDB3512	1300	1200
S1PDB3514	1500	1400
S1PDB3516	1700	1600

Dimensions in mm



E310749

Symbol	Test Conditions	Maximum Ratings	Unit
I _{dav}	T _C =55°C, module	35	A
I _{FSM}	T _{VJ} =45°C V _R =0 t=10ms (50Hz), sine t=8.3ms (60Hz), sine	610 700	A
	T _{VJ} =T _{VJM} V _R =0 t=10ms(50Hz), sine t=8.3ms(60Hz), sine	475 550	
I ² t	T _{VJ} =45°C V _R =0 t=10ms (50Hz), sine t=8.3ms (60Hz), sine	1350 1200	A ² s
	T _{VJ} =T _{VJM} V _R =0 t=10ms(50Hz), sine t=8.3ms(60Hz), sine	1130 1030	
T _{VJ} T _{VJM} T _{stg}		-55...+150 150 -55...+125	°C
V _{ISO L}	50/60Hz, RMS I _{ISO L} ≤ 1mA t=1min t=1s	2500 3000	V~
M _d	Mounting torque (M4)	2 ± 15%	Nm
Weight	typ.	16	g

Sirectifier®

S1PDB35

Single 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	$I_F=17.5\text{A}; T_{VJ}=25^{\circ}\text{C}$	≤ 1.1	V
V_{Fo}	For power-loss calculations only	0.8	V
r_F	$T_{VJ}=T_{VJM}$	3.867	m Ω
R_{thJC}	per diode per module	1.4 0.35	K/W
R_{thJK}	per diode per module	1.6 0.4	K/W
ds	Creeping distance on surface	10	mm
da	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
- * UL file NO.E310749
- * RoHS compliant

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

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Single Phase Bridge Rectifiers

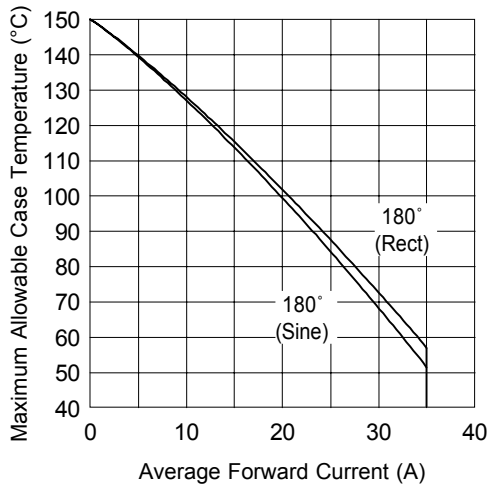


Fig. 1 - Current Ratings Characteristics

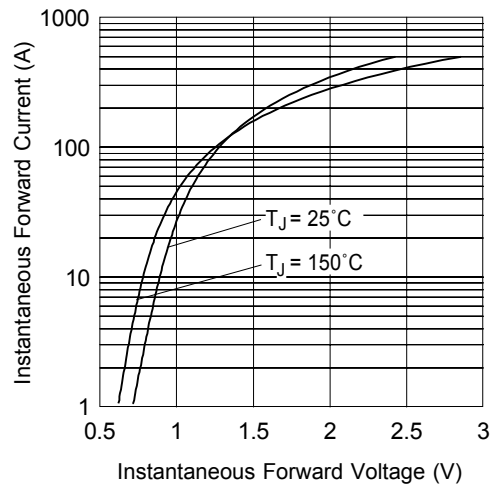


Fig. 2 - Forward Voltage Drop Characteristics

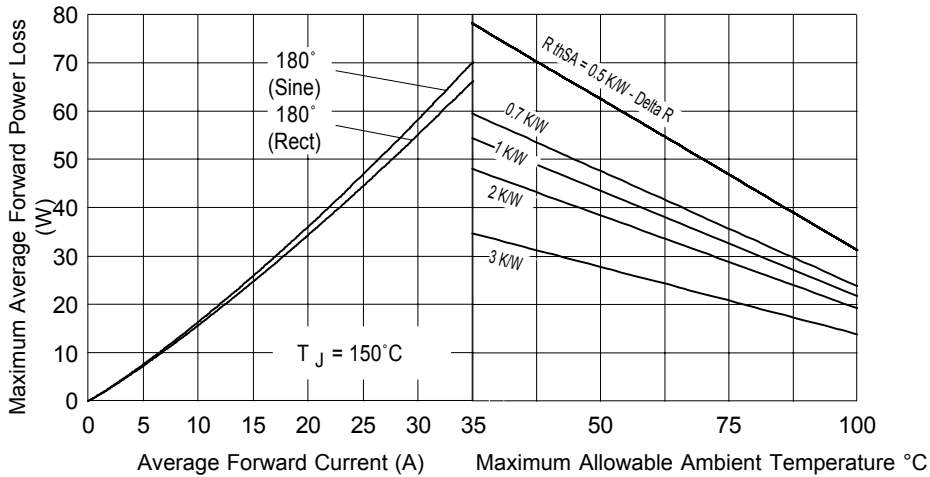


Fig. 3 - Total Power Loss Characteristics

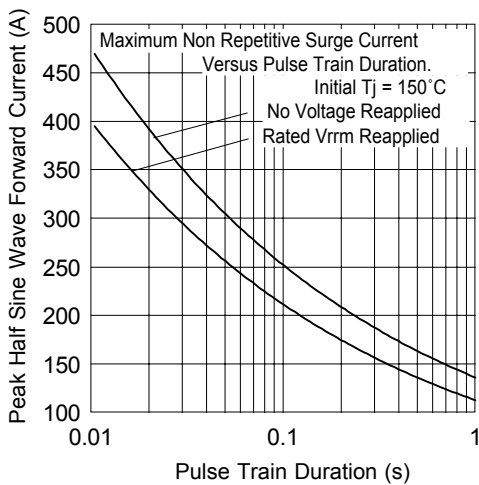


Fig. 4 - Maximum Non-Repetitive Surge Current

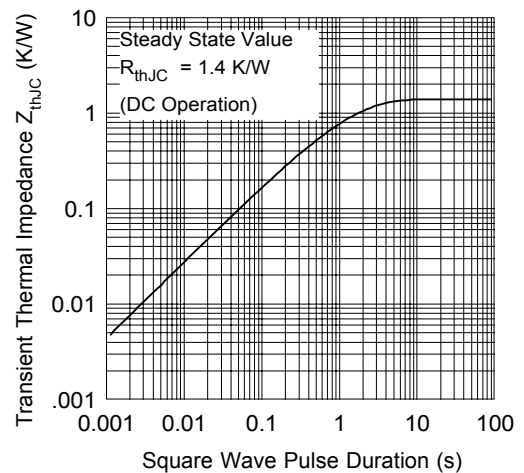


Fig. 5 - Thermal Impedance Z_{thJC} Characteristic