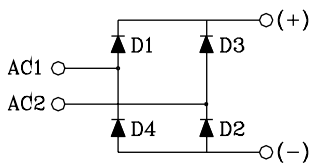


S1PDB40XX

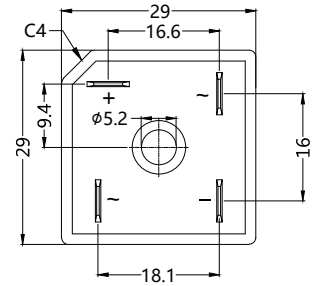
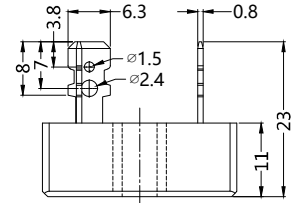
Single Phase Bridge Rectifiers



Type	V _{RSM} V	V _{RRM} V
S1PDB4004	500	400
S1PDB4006	700	600
S1PDB4008	900	800
S1PDB4012	1300	1200
S1PDB4014	1500	1400
S1PDB4016	1700	1600
S1PDB4018	1900	1800



Dimensions in mm



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	320 400	A
	T _{VJ} =T _{VJM} V _R =0	t=10ms(50Hz), sine t=8.3ms(60Hz), sine	250 280	
I ² t	T _{VJ} =45°C V _R =0	t=10ms (50Hz), sine t=8.3ms (60Hz), sine	700 850	A ² s
	T _{VJ} =T _{VJM} V _R =0	t=10ms(50Hz), sine t=8.3ms(60Hz), sine	980 1020	
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.		16	g

Sirectifier®

S1PDB40XX

Single Phase Bridge Rectifiers

Symbol	Test Conditions	Characteristic Values	Unit
I_R	$V_R = V_{RRM}; T_{VJ} = 25^{\circ}\text{C}$ $V_R = V_{RRM}; T_{VJ} = T_{VJM}$	≤ 10 ≤ 1500	μA
V_F	$I_F = 20\text{A}; T_{VJ} = 25^{\circ}\text{C}$	≤ 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	1.2 0.30	K/W
R_{thJK}	per diode per module	1.4 0.35	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

S1PDB40XX

Single Phase Bridge Rectifiers

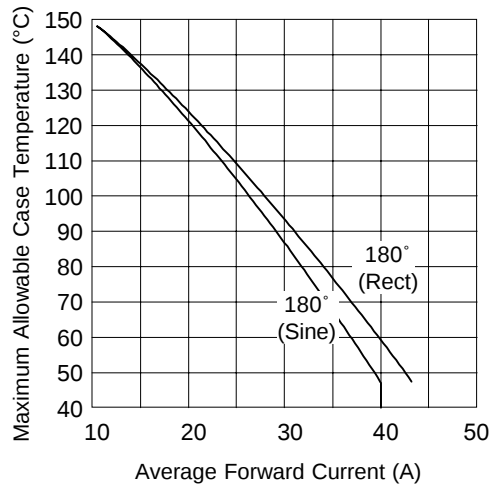


Fig. 1 - Current Ratings Characteristics

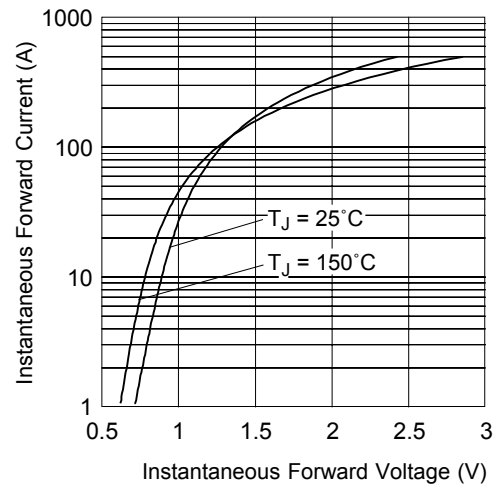


Fig. 2 - Forward Voltage Drop Characteristics

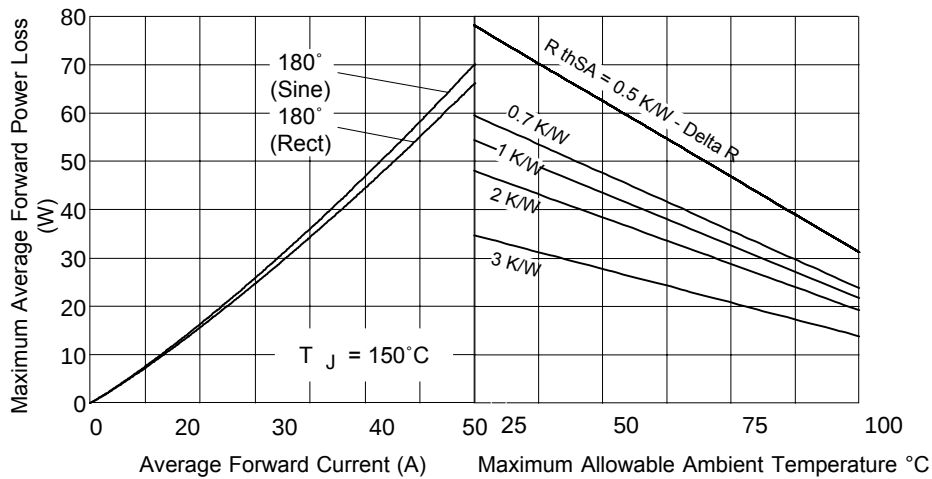


Fig. 3 - Total Power Loss Characteristics

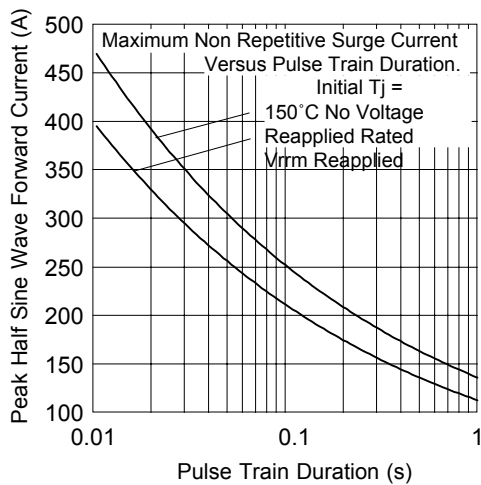


Fig. 4 - Maximum Non-Repetitive Surge Current

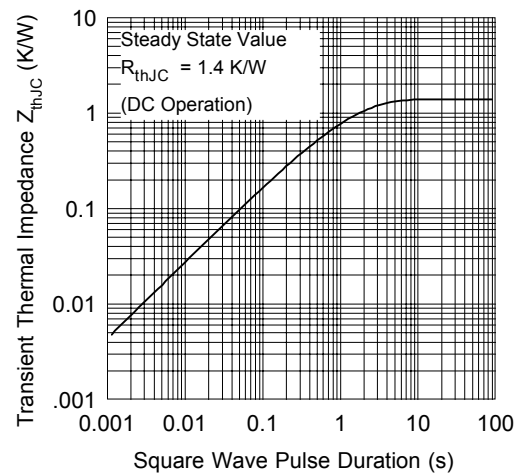


Fig. 5- Thermal Impedance Z_{thJC} Characteristic