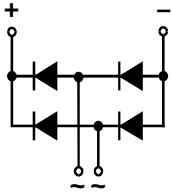
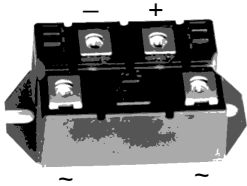
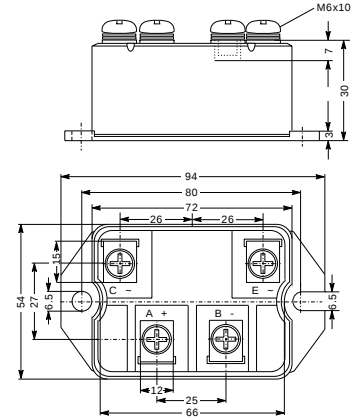


Single Phase Bridge Rectifiers Modules



Type	V_{RSM}	V_{RRM}
	V	V
S1PDB174N08	900	800
S1PDB174N10	1100	1000
S1PDB174N12	1300	1200
S1PDB174N14	1500	1400
S1PDB174N16	1700	1600
S1PDB174N18	1900	1800

Dimensions in mm (1mm=0.0394")



Symbol	Test Conditions		Maximum Ratings	Unit
I_{dav} I_{dav}	T _C =100°C, module T _A =35°C (R _{thCA} =0.2K/W), module		174 139	A
I_{FSM}	T _{VJ} =45°C	t=10ms (50Hz), sine	2800	A
	V _R =0	t=8.3ms (60Hz), sine	3300	
	T _{VJ} =T _{VJM}	t=10ms(50Hz), sine	2500	
	V _R =0	t=8.3ms(60Hz), sine	2750	
I²t	T _{VJ} =45°C	t=10ms (50Hz), sine	39200	A ² s
	V _R =0	t=8.3ms (60Hz), sine	45000	
	T _{VJ} =T _{VJM}	t=10ms(50Hz), sine	31200	
	V _R =0	t=8.3ms(60Hz), sine	31300	
T_{VJ} T_{VJM} T_{stg}			-40...+150 150 -40...+125	°C
V_{ISOL}	50/60Hz, RMS I _{ISOL} ≤1mA	t=1min t=1s	2500 3000	V~
M_d	Mounting torque (M6) Terminal connection torque (M6)		5 ± 15% 5 ± 15%	Nm
Weight	typ.		270	g

S1PDB174

Single Phase Bridge Rectifiers Modules

Symbol	Test Conditions	Characteristic Values	Unit
I_R	$V_R = V_{RRM}; T_{VJ} = 25^{\circ}\text{C}$ $V_R = V_{RRM}; T_{VJ} = T_{VJM}$	≤ 0.3 ≤ 5	mA
V_F	$I_F = 300\text{A}; T_{VJ} = 25^{\circ}\text{C}$	≤ 1.43	V
V_{TO}	For power-loss calculations only	0.8	V
r_T	$T_{VJ} = T_{VJM}$	2.2	m Ω
R_{thJC}	per diode; 180° per module	0.45 0.11	K/W
R_{thJK}	per diode; 180° per module	0.6 0.15	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

- * Package with screw terminals
- * Isolation voltage 3000 V~
- * Planar passivated chips
- * Blocking voltage up to 1800 V
- * Low forward voltage drop

APPLICATIONS

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

ADVANTAGES

- * Easy to mount with two screws
- * Space and weight savings
- * Improved temperature and power cycling