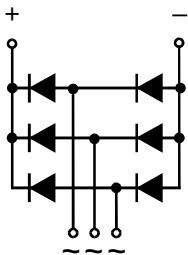


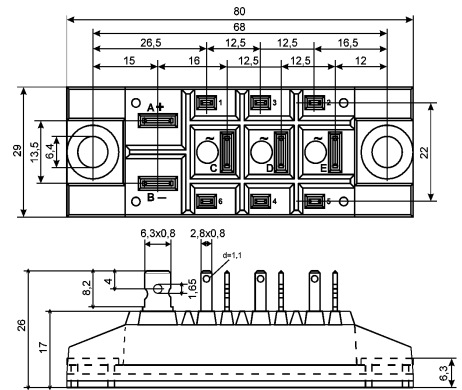
S3PDB30

Three Phase Rectifier Modules



Type	V_{RSM} V	V_{RRM} V
S3PDB30N08	900	800
S3PDB30N12	1300	1200
S3PDB30N14	1500	1400
S3PDB30N16	1700	1600
S3PDB30N18	1900	1800

Dimensions in mm (1mm=0.0394")



Symbol	Test Conditions		Maximum Ratings	Unit
I_{dav}	$T_C=100^{\circ}C$, module		30	A
I_{FSM}	$T_{VJ}=45^{\circ}C$	$t=10ms$ (50Hz), sine	270	A
	$V_R=0$	$t=8.3ms$ (60Hz), sine	300	
	$T_{VJ}=T_{VJM}$	$t=10ms$ (50Hz), sine	230	
	$V_R=0$	$t=8.3ms$ (60Hz), sine	255	
I^2t	$T_{VJ}=45^{\circ}C$	$t=10ms$ (50Hz), sine	450	A^2s
	$V_R=0$	$t=8.3ms$ (60Hz), sine	460	
	$T_{VJ}=T_{VJM}$	$t=10ms$ (50Hz), sine	350	
	$V_R=0$	$t=8.3ms$ (60Hz), sine	360	
T_{VJ} T_{VJM} T_{stg}			-40...+150 150 -40...+125	$^{\circ}C$
V_{ISOL}	50/60Hz, RMS $I_{ISOL} \leq 1mA$	$t=1min$ $t=1s$	2500 3000	V~
M_d	Mounting torque (M6)		4.7	Nm
Weight	typ.		50	g

S3PDB30

Three Phase Rectifier 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	$I_F = 10\text{A}; T_{VJ} = 25^{\circ}\text{C}$	1.2	V
V_{TO}	For power-loss calculations only	0.8	V
r_T		40	$\text{m}\Omega$
R_{thJC}	per diode per module	0.9 0.15	K/W
R_{thJK}	per diode per module	1.1 0.57	K/W
d_s	Creeping distance on surface	16.1	mm
d_A	Creepage distance in air	7.5	mm
a	Max. allowable acceleration	50	m/s^2

FEATURES

- * Package with copper base plate
- * Isolation voltage 3000 V~
- * Planar passivated chips
- * 1/4" fast-on power terminal
- * 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