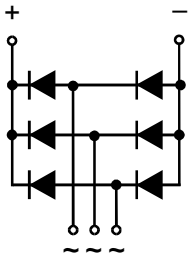
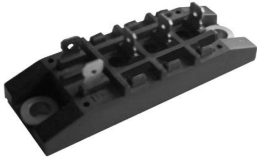


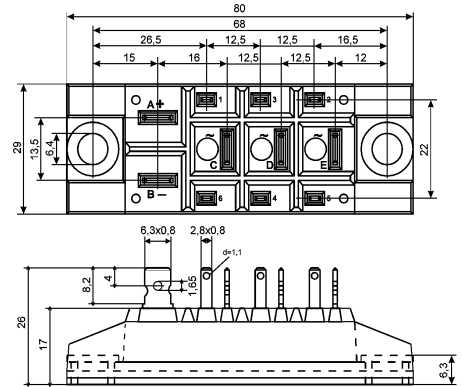
S3PDB70

Three Phase Rectifier Modules



Type	V_{RSM} V	V_{RRM} V
S3PDB70N08	900	800
S3PDB70N12	1300	1200
S3PDB70N14	1500	1400
S3PDB70N16	1700	1600
S3PDB70N18	1900	1800

Dimensions in mm (1mm=0.0394")



Symbol	Test Conditions	Maximum Ratings	Unit
I_{dav}	$T_C=100^{\circ}C$, module	70	A
I_{FSM}	$T_{VJ}=45^{\circ}C$ $V_R=0$ $t=10ms$ (50Hz), sine $t=8.3ms$ (60Hz), sine	550 600	A
	$T_{VJ}=T_{VJM}$ $V_R=0$ $t=10ms$ (50Hz), sine $t=8.3ms$ (60Hz), sine	500 550	
I^2t	$T_{VJ}=45^{\circ}C$ $V_R=0$ $t=10ms$ (50Hz), sine $t=8.3ms$ (60Hz), sine	1520 1520	A^2s
	$T_{VJ}=T_{VJM}$ $V_R=0$ $t=10ms$ (50Hz), sine $t=8.3ms$ (60Hz), sine	1250 1250	
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 (M5) (10-32 UNF)	$5 \pm 15\%$ $44 \pm 15\%$	Nm lb.in.
Weight	typ.	110	g

S3PDB70

Three Phase Rectifier Modules

Symbol	Test Conditions	Characteristic Values	Unit
I_R	V _R =V _{RRM} ; T _{VJ} =25°C V _R =V _{RRM} ; T _{VJ} =T _{VJM}	≤ 0.5 < 10	mA
V_F	I _F =150A; T _{VJ} =25°C	≤ 1.7	V
V_{TO}	For power-loss calculations only	0.8	V
r_T		8	mΩ
R_{thJC}	per diode	1.45	K/W
	per module	0.36	
R_{thJK}	per diode	1.9	K/W
	per module	0.48	
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 terminals
- * 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