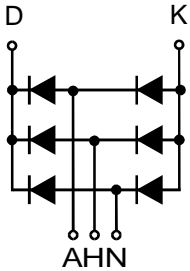
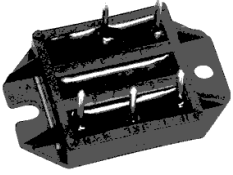


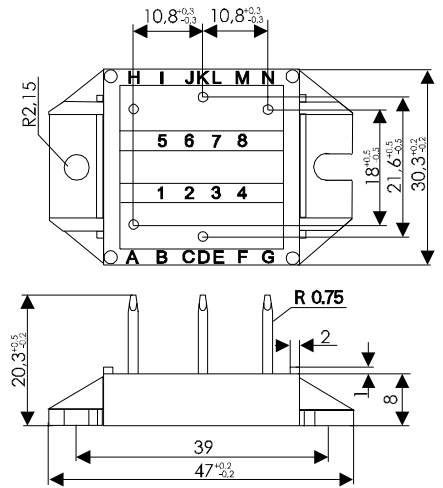
# S3PDB86

## Three Phase Rectifier Modules



Type	V <sub>RSM</sub> V	V <sub>RSM</sub> V
S3PDB86N08	900	800
S3PDB86N12	1300	1200
S3PDB86N14	1500	1400
S3PDB86N16	1700	1600
S3PDB86N18	1900	1800

Dimensions in mm (1mm=0.0394")



Symbol	Test Conditions	Maximum Ratings	Unit
I <sub>dav</sub>	T <sub>C</sub> =90°C, module	86	A
I <sub>dav</sub>	T <sub>A</sub> =45°C (R <sub>thCA</sub> =0.6K/W), module	-	
I <sub>FSM</sub>	T <sub>VJ</sub> =45°C V <sub>R</sub> =0 t=10ms (50Hz), sine t=8.3ms (60Hz), sine	530 570	A
	T <sub>VJ</sub> =T <sub>VJM</sub> V <sub>R</sub> =0 t=10ms(50Hz), sine t=8.3ms(60Hz), sine	480 520	
I <sup>2</sup> t	T <sub>VJ</sub> =45°C V <sub>R</sub> =0 t=10ms (50Hz), sine t=8.3ms (60Hz), sine	1400 1360	A <sup>2</sup> s
	T <sub>VJ</sub> =T <sub>VJM</sub> V <sub>R</sub> =0 t=10ms(50Hz), sine t=8.3ms(60Hz), sine	1150 1140	
T <sub>VJ</sub> T <sub>VJM</sub> T <sub>stg</sub>		-40...+150 150 -40...+125	°C
V <sub>ISO L</sub>	50/60Hz, RMS I <sub>ISO L</sub> ≤1mA t=1min t=1s	2500 3000	V~
M <sub>d</sub>	Mounting torque (M4)	1.5-2 14-18	Nm lb.in.
Weight	typ.	18	g

# S3PDB86

## Three Phase Rectifier Modules

Symbol	Test Conditions	Characteristic Values	Unit
<b>I<sub>R</sub></b>	V <sub>R</sub> =V <sub>RRM</sub> ; T <sub>VJ</sub> =25°C V <sub>R</sub> =V <sub>RRM</sub> ; T <sub>VJ</sub> =T <sub>VJM</sub>	≤ 0.5 ≤ 3	mA
<b>V<sub>F</sub></b>	I <sub>F</sub> =80A; T <sub>VJ</sub> =25°C	≤ 1.5	V
<b>V<sub>TO</sub></b>	For power-loss calculations only	0.8	V
<b>r<sub>T</sub></b>		7.5	mΩ
<b>R<sub>thJC</sub></b>	per diode; DC current per module	1.2 0.2	K/W
<b>R<sub>thJK</sub></b>	per diode; DC current per module	1.5 0.25	K/W
<b>d<sub>s</sub></b>	Creeping distance on surface	11.2	mm
<b>d<sub>A</sub></b>	Creepage distance in air	9.7	mm
<b>a</b>	Max. allowable acceleration	50	m/s <sup>2</sup>

### FEATURES

- \* Package with DCB base plate
- \* Isolation voltage 3000 V~
- \* Planar passivated chips
- \* Leads suitable for PCB soldering
- \* 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