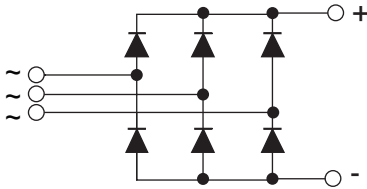


# S3PDB101

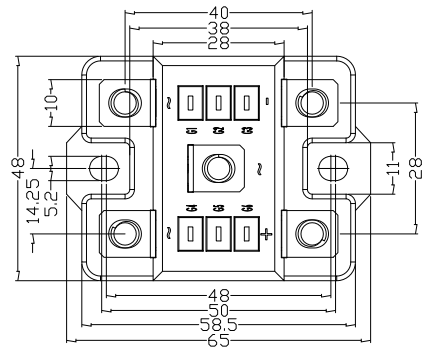
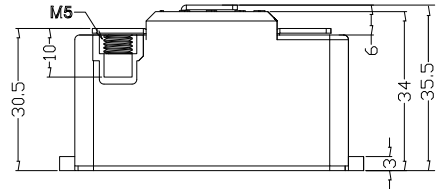
## Three Phase Rectifier Modules



Type	V <sub>RSM</sub> V	V <sub>RRM</sub> V
S3PDB101N08	900	800
S3PDB101N12	1300	1200
S3PDB101N14	1500	1400
S3PDB101N16	1700	1600
S3PDB101N18	1900	1800



### Dimensions in mm (1mm=0.0394")



Symbol	Test Conditions	Maximum Ratings	Unit	
I <sub>dav</sub>	T <sub>C</sub> =100°C, module	101	A	
I <sub>dav</sub>	T <sub>A</sub> =45°C (R <sub>thCA</sub> =0.6K/W), module	24		
I <sub>FSM</sub>	T <sub>VJ</sub> =45°C V <sub>R</sub> =0	t=10ms (50Hz), sine t=8.3ms (60Hz), sine	1250 1500	A
	T <sub>VJ</sub> =T <sub>VJM</sub> V <sub>R</sub> =0	t=10ms(50Hz), sine t=8.3ms(60Hz), sine	1050 1260	
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	6000 6600	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	5000 6000	
T <sub>VJ</sub> T <sub>VJM</sub> T <sub>stg</sub>		-40...+150 150 -40...+150	°C	
V <sub>ISOL</sub>	50/60Hz, RMS	t=1min	2500	V~
	I <sub>ISOL</sub> ≤1mA	t=1s	3000	
M <sub>d</sub>	Mounting torque (M5)		5 ± 15%	Nm
	Terminal connection torque (M5)		5 ± 15%	
Weight	typ.		160	g

**Sirectifier®**

# S3PDB101

## Three Phase Rectifier Modules

Symbol	Test Conditions	Characteristic Values	Unit
$I_R$	$V_R=V_{RRM}; T_{VJ}=25^{\circ}\text{C}$ $V_R=V_{RRM}; T_{VJ}=T_{VJM}$	$\leq 0.3$ $\leq 5$	mA
$V_F$	$I_F=100\text{A}; T_{VJ}=25^{\circ}\text{C}$	$\leq 1.35$	V
$V_{FO}$	For power-loss calculations only	0.85	V
$r_F$	$T_{VJ}=T_{VJM}$	4.5	m $\Omega$
$R_{thJC}$	per diode per module	0.85 0.14	K/W
$R_{thJK}$	per diode per module	1.01 0.168	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 <sup>2</sup>

### FEATURES

- \* Package with screw terminals
- \* Isolation voltage 3000 V~
- \* 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

# S3PDB101

## Three Phase Rectifier Modules

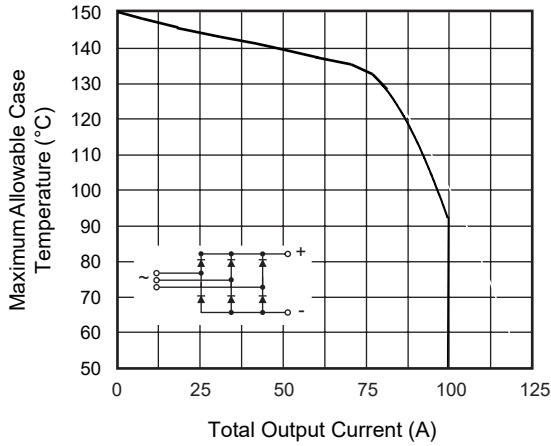


Fig. 1 - Current Ratings Characteristic

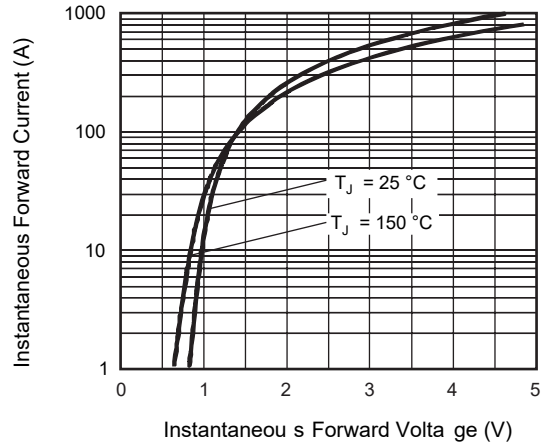


Fig. 2 - Forward Voltage Drop Characteristics

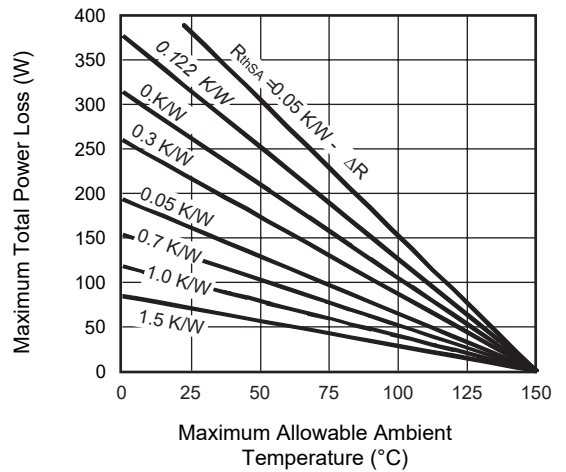
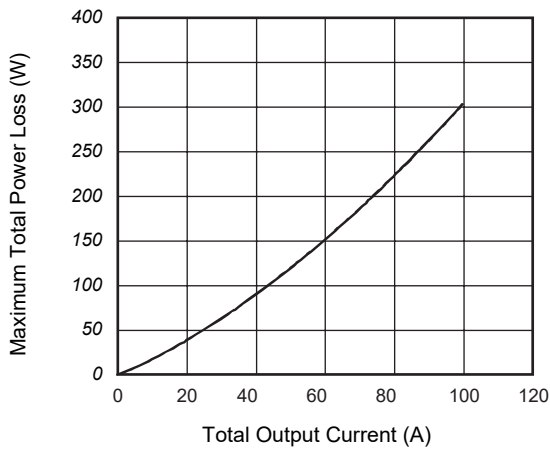


Fig. 3 - Total Power Loss Characteristics

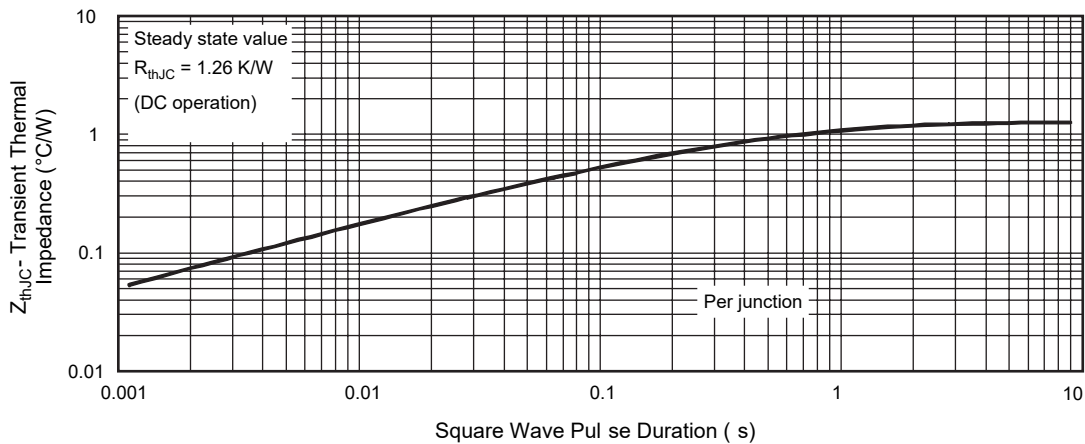


Fig.4 - Thermal Impedance  $Z_{thJC}$  Characteristic