



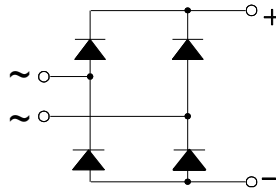
## Single Phase Rectifier Bridge

### PSB 55T

Preliminary Data Sheet

$I_{dAVM} = 50 \text{ A}$   
 $V_{RRM} = 800 \text{ V to } 2000 \text{ V}$

$V_{RSM}$ V	$V_{RRM}$ V	Type Number
800	800	PSB 55T/08
1200	1200	PSB 55T/12
1400	1400	PSB 55T/14
1600	1600	PSB 55T/16
1800	1800	PSB 55T/18
2000	2000	PSB 55T/20



Symbol	Test Conditions	Maximum Ratings
$I_{dAVM}$	$T_c = 85^\circ\text{C}$ per module	50 A
$I_{FSM}$	$T_{vj} = 45^\circ\text{C}, V_R = 0 \text{ V}$	$t = 10 \text{ ms}$ 50 Hz, sine 750 A
		$t = 8.3 \text{ ms}$ 60 Hz, sine 820 A
	$T_{vj} = T_{vj\text{m}}, V_R = 0 \text{ V}$	$t = 10 \text{ ms}$ 50 Hz, sine 670 A
		$t = 8.3 \text{ ms}$ 60 Hz, sine 740 A
$\int i^2 dt$	$T_{vj} = 45^\circ\text{C}, V_R = 0 \text{ V}$	$t = 10 \text{ ms}$ 50 Hz, sine 2800 A <sup>2</sup> s
		$t = 8.3 \text{ ms}$ 60 Hz, sine 2820 A <sup>2</sup> s
	$T_{vj} = T_{vj\text{m}}, V_R = 0 \text{ V}$	$t = 10 \text{ ms}$ 50 Hz, sine 2250 A <sup>2</sup> s
		$t = 8.3 \text{ ms}$ 60 Hz, sine 2300 A <sup>2</sup> s
$T_{vj}$		-40 ... +150 °C
$T_{vj\text{m}}$		150 °C
$T_{stg}$		-40 ... +150 °C
$V_{isol}$	50/60 Hz, RMS $t = 1 \text{ min}$	2500 V~
	$I_{isol} \leq 1 \text{ mA}$ $t = 1 \text{ s}$	3000 V~
$M_d$	Mounting torque (M5)	5 Nm
	Terminal connection torque (M5)	3 Nm
Weight	typ.	200 g

#### Features

- Package with screw terminals
- Isolation voltage 3000 V~
- Mesa glass-passivated chips
- Blocking voltage up to 2000 V
- Low forward voltage drop
- UL registered E 148688

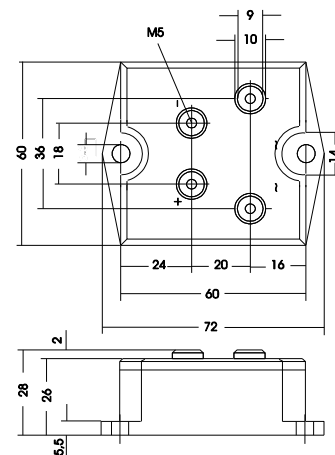
#### Applications

- 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 capability

#### Package style and outline



Dimensions in mm (1mm = 0.0394")

Symbol	Test Conditions	Characteristic Value
$I_R$	$V_R = V_{RRM}$ $T_{vj} = 25^\circ\text{C}$	$\leq 0.3 \text{ mA}$
	$V_R = V_{RRM}$ $T_{vj} = T_{vj\text{m}}$	$\leq 10.0 \text{ mA}$
$V_F$	$I_F = 150 \text{ A}$ $T_{vj} = 25^\circ\text{C}$	$\leq 1.6 \text{ V}$
$V_{TO}$	For power-loss calculations only	0.85 V
$r_T$	$T_{vj} = T_{vj\text{m}}$	8 mΩ
$R_{th(j-c)}$	per diode; DC current	2.6 K/W
	per module	0.65 K/W
$R_{th(j-s)}$	per diode; DC current	2.84 K/W
	per module	0.71 K/W
$d_s$	Creeping distance on surface	7.8 mm
$d_A$	Creeping distance on air	7.8 mm
$a$	Maximum allowable acceleration	50 m/s <sup>2</sup>

Data according to IEC 60747 refers to a single diode unless otherwise stated

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