

Three Phase Rectifier Bridge

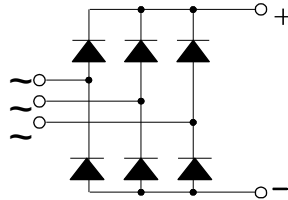
PSD 35T

Preliminary Data Sheet

$$I_{dAVM} = 38 \text{ A}$$

$$V_{RRM} = 800 \text{ V to } 2000 \text{ V}$$

V_{RSM} V	V_{RRM} V	Type Number
800	800	PSD 35T/08
1200	1200	PSD 35T/12
1400	1400	PSD 35T/14
1600	1600	PSD 35T/16
1800	1800	PSD 35T/18
2000	2000	PSD 35T/20



Symbol	Test Conditions		Maximum Ratings	
I_{dAVM}	$T_c = 85^\circ\text{C}$ per module		38	A
I_{FSM}	$T_{vj} = 45^\circ\text{C}, V_R = 0 \text{ V}$	$t = 10 \text{ ms}$	50 Hz, sine	400 A
		$t = 8.3 \text{ ms}$	60 Hz, sine	440 A
	$T_{vj} = T_{vj\text{m}}, V_R = 0 \text{ V}$	$t = 10 \text{ ms}$	50 Hz, sine	360 A
		$t = 8.3 \text{ ms}$	60 Hz, sine	400 A
$\int i^2 dt$	$T_{vj} = 45^\circ\text{C}, V_R = 0 \text{ V}$	$t = 10 \text{ ms}$	50 Hz, sine	800 A ² s
		$t = 8.3 \text{ ms}$	60 Hz, sine	810 A ² s
	$T_{vj} = T_{vj\text{m}}, V_R = 0 \text{ V}$	$t = 10 \text{ ms}$	50 Hz, sine	650 A ² s
		$t = 8.3 \text{ ms}$	60 Hz, sine	670 A ² s
T_{vj}			-40 ... +150	$^\circ\text{C}$
$T_{vj\text{m}}$			150	$^\circ\text{C}$
T_{stg}			-40 ... +150	$^\circ\text{C}$
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	(M4)	1.5	Nm
	Terminal connection torque	(M4)	1.5	Nm
Weight	typ.		110	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

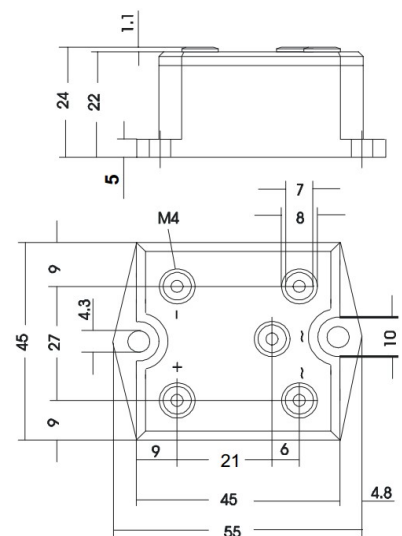
Applications

- 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 mA
	$V_R = V_{RRM}$	$T_{vj} = T_{vj\text{m}}$	$\leq$	5.0 mA
V_F	$I_F = 150 \text{ A}$	$T_{vj} = 25^\circ\text{C}$	$\leq$	2.2 V
V_{TO}	For power-loss calculations only			0.85 V
r_T	$T_{vj} = T_{vj\text{m}}$			12 mΩ
$R_{th(j-c)}$	per diode; DC current			4.2 K/W
	per module			0.7 K/W
$R_{th(j-s)}$	per diode; DC current			4.8 K/W
	per module			0.8 K/W
d_s	Creeping distance on surface			6.2 mm
d_A	Creeping distance on air			6.2 mm
a	Maximum allowable acceleration			50 m/s ²