

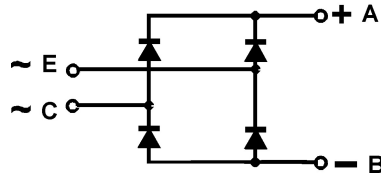
Single Phase Rectifier Bridges Slim Version

PSBS 162

I_{dAV} = 122 A
 V_{RRM} = 800-1800 V

Preliminary Data Sheet

V_{RSM} V	V_{RRM} V	Type
800	800	PSBS 162/08
1200	1200	PSBS 162/12
1400	1400	PSBS 162/14
1600	1600	PSBS 162/16
1800	1800	PSBS 162/18



Symbol	Test Conditions	Maximum Ratings
I_{dAV}	$T_C = 100^\circ\text{C}$, module	122 A
I_{FSM}	$T_{VJ} = 45^\circ\text{C}$ $V_R = 0$ $t = 10$ ms (50 Hz), sine	1800 A
	$t = 8.3$ ms (60 Hz), sine	1950 A
	$T_{VJ} = T_{VJM}$ $V_R = 0$ $t = 10$ ms (50 Hz), sine	1600 A
	$t = 8.3$ ms (60 Hz), sine	1800 A
$\int i^2 dt$	$T_{VJ} = 45^\circ\text{C}$ $V_R = 0$ $t = 10$ ms (50 Hz), sine	16200 A ² s
	$t = 8.3$ ms (60 Hz), sine	16200 A ² s
	$T_{VJ} = T_{VJM}$ $V_R = 0$ $t = 10$ ms (50 Hz), sine	12800 A ² s
	$t = 8.3$ ms (60 Hz), sine	13400 A ² s
T_{VJ}	-40 ... + 150	$^\circ\text{C}$
T_{VJM}	150	$^\circ\text{C}$
T_{stg}	-40 ... + 125	$^\circ\text{C}$
V_{ISOL}	50/60 HZ, RMS $t = 1$ min	2500 V ~
	$I_{ISOL} \leq 1$ mA $t = 1$ s	3000 V ~
M_d	Mounting torque (M6)	5 Nm
	Terminal connection torque (M6)	5 Nm
Weight	typ.	225 g

Features

- Low profile (overall height: 17 mm)
- Package with screw terminals
- Isolation voltage 3000 V~
- Planar glasspassivated chips
- Blocking voltage up to 1800 V
- Low forward voltage drop
- UL release applied, RoHS conform

Applications

- Supplies for DC power equipment
- Input rectifiers for PWM inverter
- Battery DC power supplies
- Field supply for DC motors

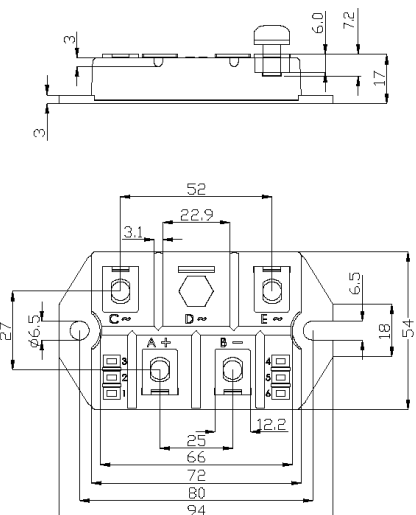
Advantages

- 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")

Max. allowed screw-in depth: 7.2 mm



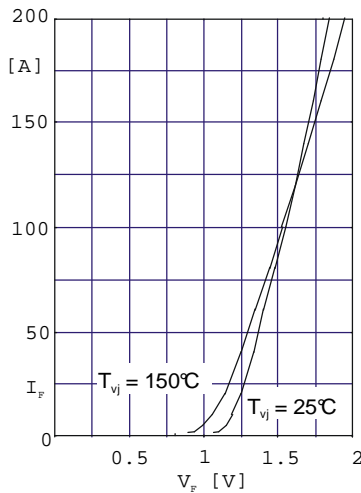


Fig. 1 Forward current versus voltage drop per diode

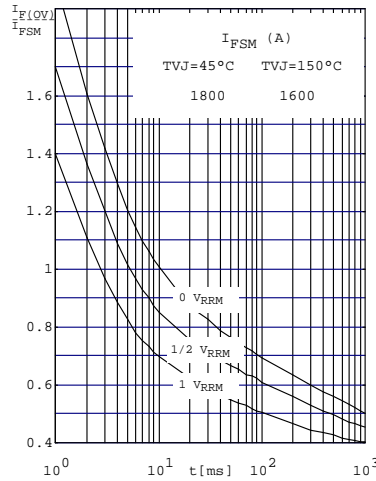


Fig. 2 Surge overload current per diode I_{FSM} : Crest value. t : duration

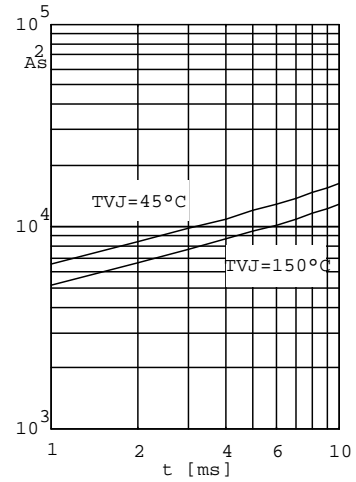


Fig. 3 $\int i^2 dt$ versus time (1-10ms) per diode (or thyristor)

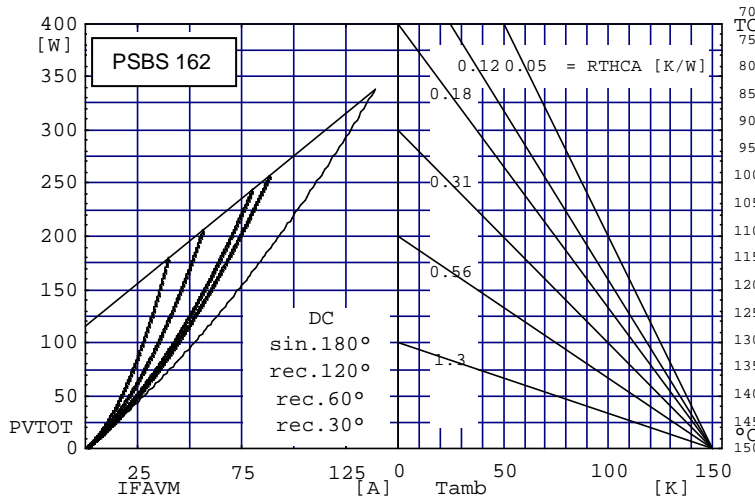


Fig. 4 Power dissipation versus direct output current and ambient temperature

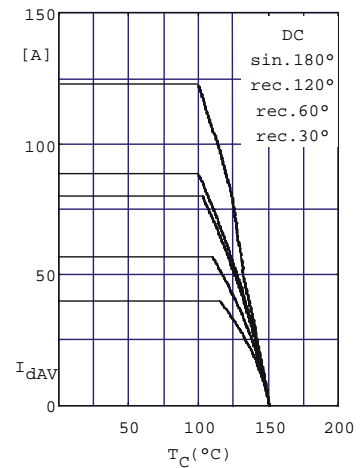


Fig. 5 Maximum forward current at case temperature

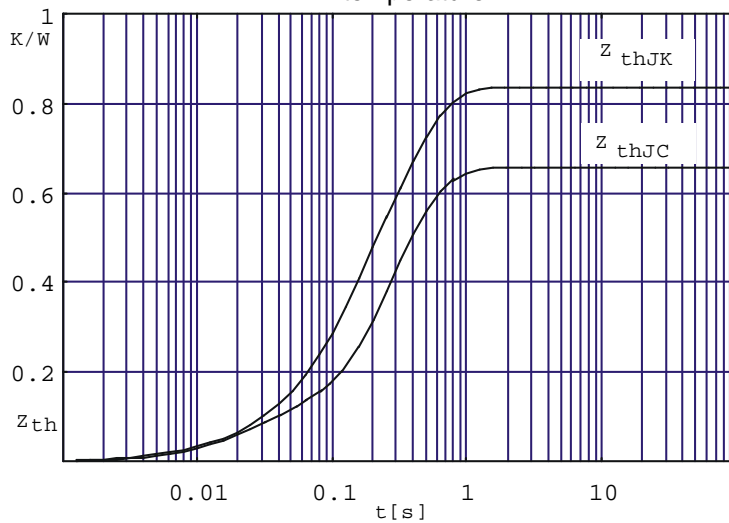


Fig. 6 Transient thermal impedance per diode (or thyristor), calculated