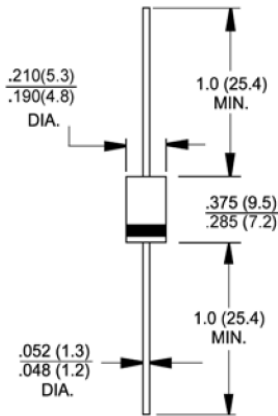




Photovoltaic Solar cell Protection Schottky Rectifier
45V/10A SCHOTTKY BARRIER RECTIFIER

Case Style: DO-201AD



Dimensions in inches and (millimeters)

Features

- ◆ Metal-Semiconductor junction with guard ring
 - ◆ Plastic package has Underwriters Laboratory Flammability Classification 94V-0
 - ◆ High current capability .low VF
 - ◆ Low power loss,high efficiency
 - ◆ For use in low voltage, high frequency inverters, free wheeling,and polarity protection applications
 - ◆ Tjmax.200℃ in DC forward mode
 - ◆ High temperature soldering guaranteed: 260℃/10 seconds0.375(9.5mm) lead length
- 5lbs.(2.3kg) tension

Mechanical Data

Case DO-201AD Molded plastic body

Mounting Position Any

Weight 1.2 grams

Maximum Ratings & Electrical Characteristics

Ratings at 25℃ ambient temperature unless otherwise specified.

Parameter	Symbol	SB1035	SB1045	SB1050	Unit
Maximum repetitive peak reverse voltage	V_{RRM}	35	45	50	V
Maximum RMS voltage	V_{RMS}	24.5	31.5	35	V
Maximum DC blocking voltage	V_{DC}	35	45	50	V
Average forward rectified current	$I_{F(AV)}$	10			A
Peak forward surge current single sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	300			A
Rating for fusig ($t \leq 8.3ms$)	I^2t	370			A ² sec
Forward voltage	IF=5A VF IF=10A	0.45 <u>0.55</u>			V
Maximum DC reverse current at rated DC blocking voltage per leg	Tj=25℃ IR Tj=125℃	500 25			μA mA
Typical thermal resistance per leg	RθJA RθJC	14 ⁽¹⁾ 3.4 ⁽²⁾			℃/W
Junction temperature	VR≤80%VRRM In DC forward mode TJ	-50~+150 200			℃
Storage temperature range	TSTG	-50~+175			℃

Notes: 1. Thermal Resistance Junction to Ambient
2. Thermal Resistance Junction to Case



SB1045

RATINGS AND CHARACTERISTIC CURVES (TA = 25°C unless otherwise noted)

Figure 1. Power Dissipation

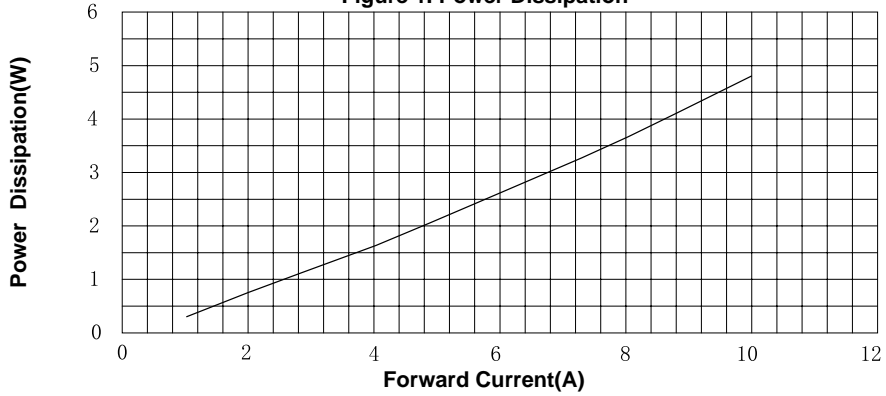


Figure 2. Forward Current Derating

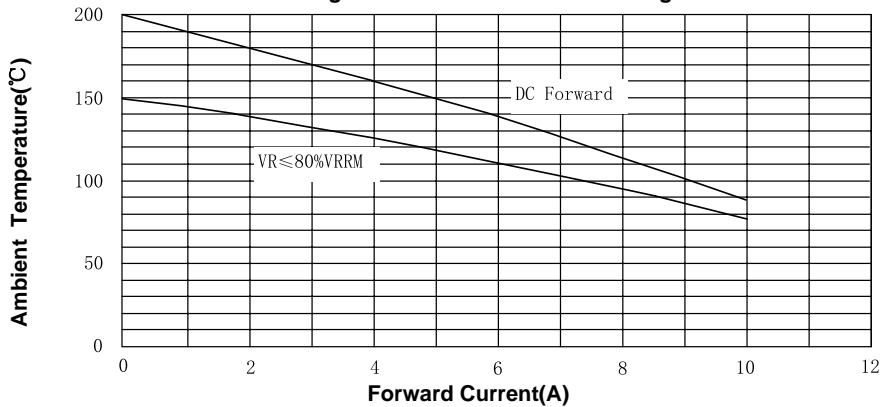


Figure 3. Forward Characteristics(Typical Value)

