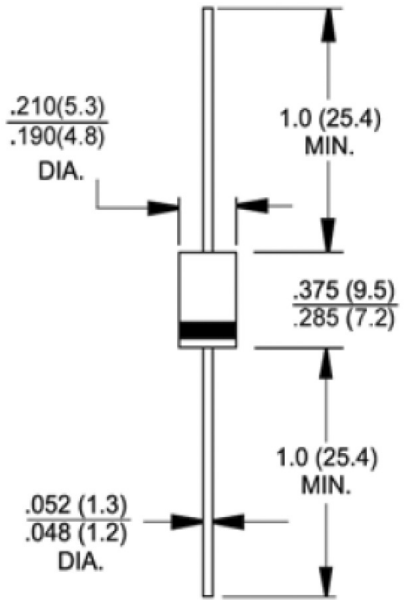
2018

Photovoltaic Solar cell Protection Schottky 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 seconds，0.375(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≤8.3ms)	I^2t	370			A^2sec
Forward voltage IF=5A	VF	0.45			V
Forward voltage IF=10A	VF	*0.55*			V
Maximum DC reverse current at Tj=25℃	IR	500			μA
rated DC blocking voltage per leg Tj=125℃	IR	25			mA
Typical thermal resistance per leg	$R_{\theta JA}$	$14^{(1)}$			℃/W
	$R_{\theta JC}$	$3.4^{(2)}$			℃/W
Junction temperature VR≤80%VRRM	TJ	-50～+150			℃
Junction temperature In DC forward mode	TJ	200			℃
Storage temperature range	T_{STG}	-50～+175			℃

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

Ratings and Characteristics Curves (TA = 25℃ unless otherwise noted)

Figure 1. Power Dissipation

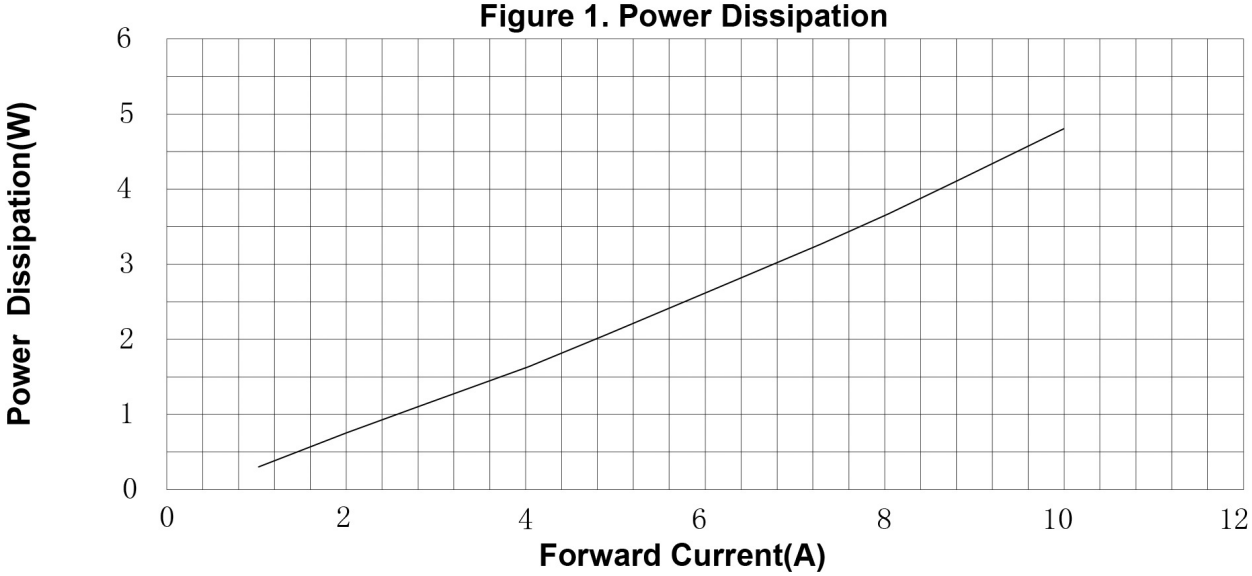


Figure 2. Forward Current Derating

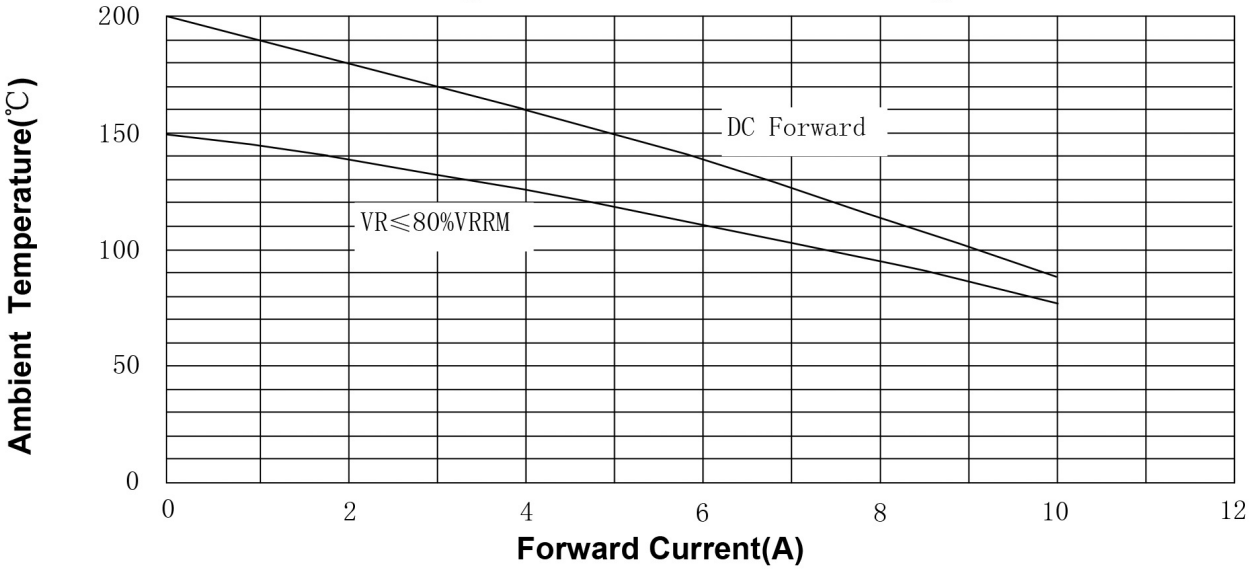


Figure 3. Forward Characteristics(Typical Value)