



# SB520 THRU SB5250

5.0 AMP. Schottky Barrier Rectifiers

## 1.Features

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0 utilizing Flame Retardant Epoxy Molding Compound.
- Guard ring for overvoltage protection
- High current capability, low forward voltage drop
- Low power loss, high efficiency
- High surge capability

DO-201AD



## 2.Mechanical Data

- Case:Molded Plastic,DO-201AD.
- Terminals: Plated leads solderable per MIL-STD-202,Method 208 guaranteed
- Polarity: Color band dentes cathode end
- Mounting Position: Any
- Making: Type Number
- Lead Free: For RoHS/Lead Free Version

Cathode ———▶ Anode

## 3.Maximum Ratings and Electrical Characteristics

Rating at 25℃ ambient temperature unless otherwise specified  
Single phase,half wave,60Hz,resistive or inductive load  
For capacitive load derate current by 20%

Type Number(Note 1)	Symbol	SB520	SB530	SB540	SB545	SB550	SB560	SB580	SB5100	SB5150	SB5200	SB5250	Unit
Maximum Repetitive Peak Reverse Voltage	V <sub>RRM</sub>	20	30	40	45	50	60	80	100	150	200	250	V
Maximum RMS Voltage	V <sub>RMS</sub>	14	21	28	31.5	35	42	56	70	105	140	175	V
Maximum DC Blocking Voltage	V <sub>DC</sub>	20	30	40	45	50	60	80	100	150	200	250	V
Average Forward Rectified (Note1) @T <sub>L</sub> =100℃	I <sub>F(AV)</sub>	5.0											A
Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I <sub>FSM</sub>	120											A
I <sup>2</sup> t Rating for Fusing (t<8.3ms)	I <sup>2</sup> t	64.84											A <sup>2</sup> s
Forward Voltage @IF=5.0A	V <sub>FM</sub>	0.55				0.7		0.85		0.92		0.95	V
Peak Reverse Current @T <sub>A</sub> =25 ℃	I <sub>R</sub>	0.2						0.05					mA
At Rated DC Blocking Voltage @T <sub>A</sub> =100 ℃		10.0						5.0					
Typical Junction Capacitance (Note 2)	C <sub>J</sub>	170						110					pF
Typical Thermal Resistance Junction to Ambient	R <sub>θJA</sub>	65											℃/W
Operating Temperature Range	T <sub>J</sub>	-55 to+150											℃
Storage Temperature Range	T <sub>STG</sub>	-55 to+150											

Note: 1. Leads maintained at ambient temperature at a distance of 9.5mm from the case  
1.0 MHz and Applied reverse Voltage of 4.0V D.C

2.Measured at



### 4. Rating And Characteristic Curves

FIG.1: Forward Current Derating Curve

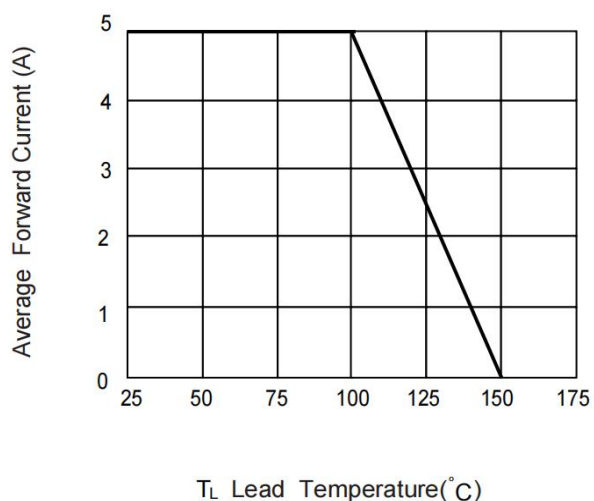


Fig. 2 Typ. Forward Characteristics

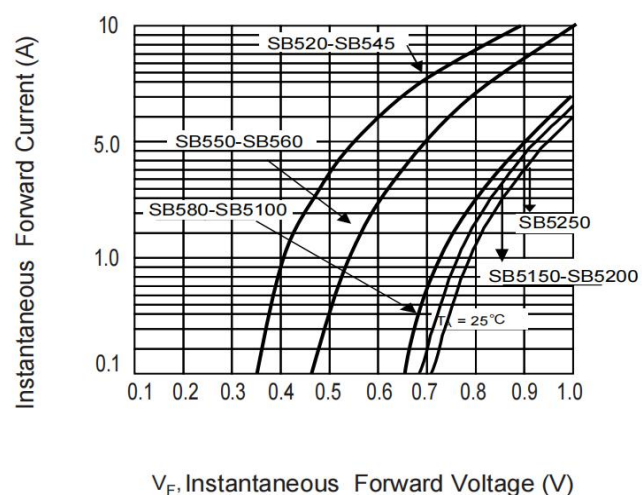


Fig. 3 Max Non-Repetitive Peak Fwd Surge Current

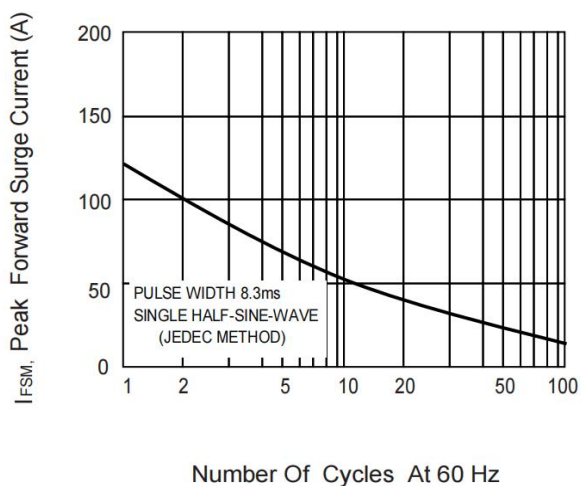
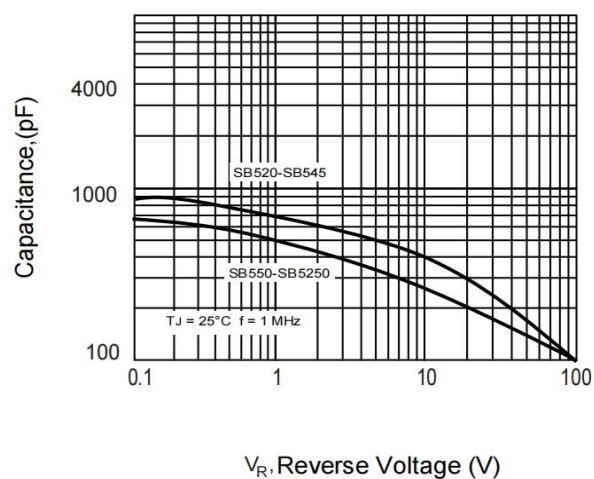
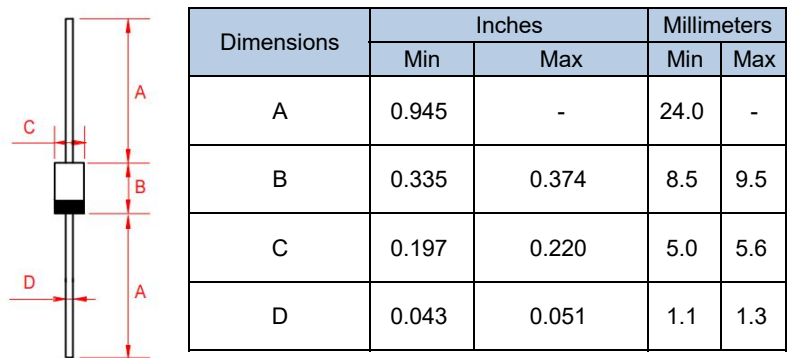


Fig.4 Typical Reverse Characteristics

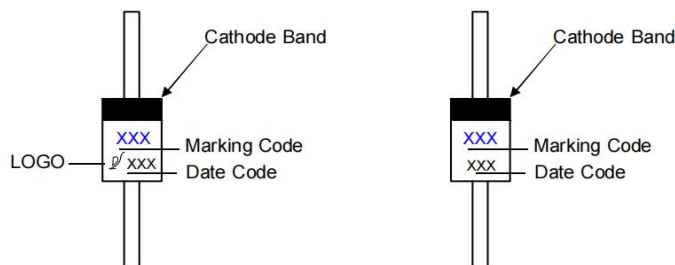




### 5. Dimensions



### 6. Part Marking System



### 7. Package Information

Package	Packing
DO-201AD	1250 / Tape & Reel
DO-201AD	250 / Ammo & Box



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