



SCHOTTKY BARRIER RECTIFIER Axial Leaded – 5A

SB520 THRU SB5200

FEATURES

- Guardring for overvoltage protection
- Very small conduction losses
- Extremely fast switching and voltage drop
- High frequency operation
- Solder dip 260 °C, 40 s
- Component in accordance to RoHS 2002/95/EC and WEEE 2002/96/EC



DO-201AD

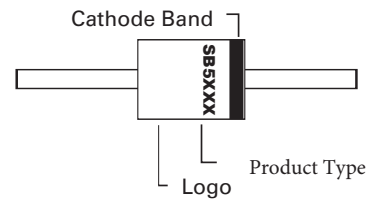
PRIMARY CHARACTERISTICS

IF(AV)	5.0 A
VRRM	20 V to 200 V
IFSM	150 A
VF	0.55V, 0.70V, 0.85V, 0.95V
IR	0.5 mA
TJ max.	150 °C

MECHANICAL DATA

Case: JEDEC DO-201AD molded plastic body
Terminals: Plated axial leads, solderable per MIL-STD-750, Method 2026
Polarity: Color band denotes cathode end
Mounting Position: Any
Weight: 1.10 gramS

Part Marking System



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified.
 Single phase half-wave 60Hz, resistive or inductive load, for capacitive load current derate by 20%.

PARAMETER	SYMBOL	SB 520	SB 530	SB 540	SB 550	SB 560	SB 570	SB 580	SB 590	SB 5100	SB 5150	SB 5200	UNIT
Maximum repetitive peak reverse voltage	V _{RRM}	20	30	40	50	60	70	80	90	100	150	200	VOLTS
Maximum RMS voltage	V _{RMS}	14	21	28	35	42	49	56	63	70	105	140	VOLTS
Maximum DC blocking voltage	V _{DC}	20	30	40	50	60	70	80	90	100	150	200	VOLTS
Maximum average forward rectified current 0.375"(9.5mm) lead length	I _(AV)	5.0											Amp
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I _{FSM}	150											Amps
Maximum instantaneous forward voltage at 5.0A	V _F	0.55		0.70			0.85			0.95			Volts
Maximum DC reverse current TA=25 °C	I _R	0.5									0.2		mA
at rated DC blocking voltage TA=100 °C		20.0						10.0			2.0		
Typical junction capacitance (NOTE 1)	C _J	500.0			400.0								pF
Typical thermal resistance (NOTE 2)	R _{θJA}	25.0											°C/W
Operating junction temperature range	T _J	-65 to +125						-65 to +150					°C
Storage temperature range	T _{STG}	-65 to +150											°C

- Note:** 1. Measured at 1MHz and applied reverse voltage of 4.0V D.C.
 2. Thermal resistance from junction to ambient at 0.375"(9.5mm) lead length, P.C.B. mounted



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Axial Leaded – 5A

**SB520
THRU
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Ratings and Characteristic Curves ($T_A=25^\circ\text{C}$ unless otherwise noted)

FIG. 1- FORWARD CURRENT DERATING CURVE

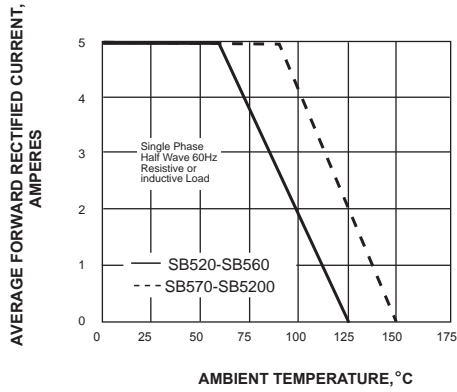


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

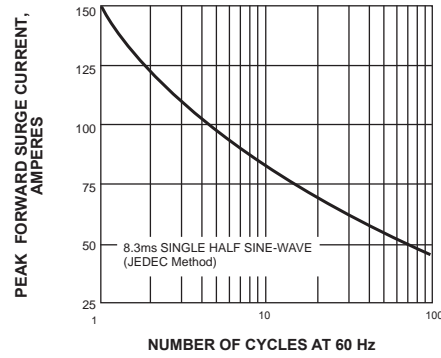


FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

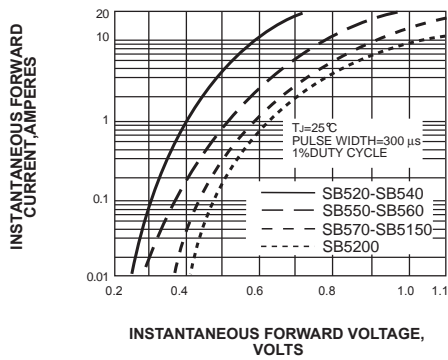
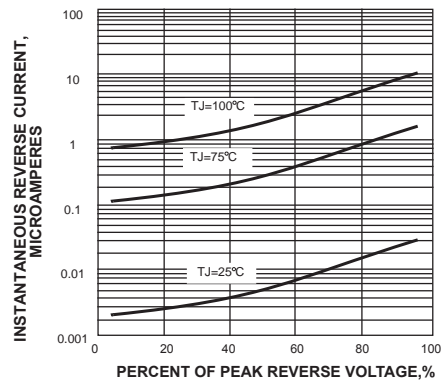
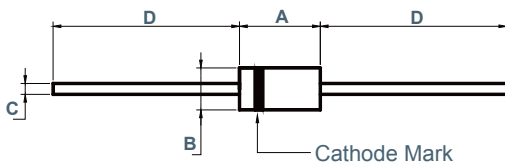


FIG. 4-TYPICAL REVERSE CHARACTERISTICS



Dimensions

DO-201AD



DIMENSIONS					
DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.335	0.374	8.50	9.50	
B	0.197	0.220	5.00	5.60	Φ
C	0.048	0.052	1.20	1.30	Φ
D	1.000	—	25.4	—	