

## SB520 SERIES

### SCHOTTKY BARRIER RECTIFIERS

**VOLTAGE** 20 to 60 Volt **CURRENT** 5 Ampere

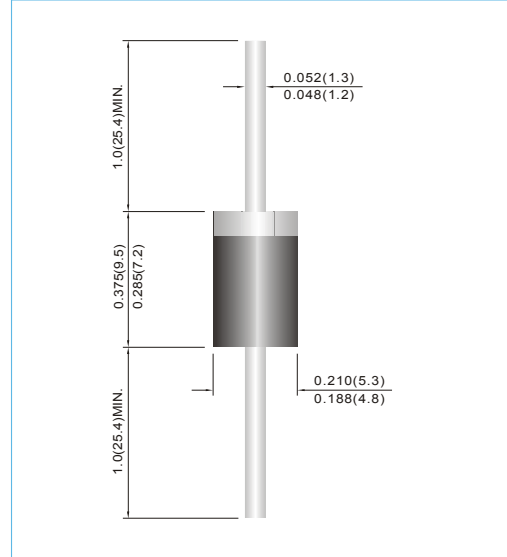
**DO-201AD** Unit : inch(mm)

#### FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-O utilizing Flame Retardant Epoxy Molding Compound.
- For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications.
- ESD Passed devices : Air mode 15KV, human body mode 8KV
- Lead free in compliance with EU RoHS 2.0

#### MECHANICAL DATA

- Case: DO-201AD Molded plastic
- Terminals: Axial leads, solderable per MIL-STD-750, Method 2026
- Polarity: Color band denotes cathode
- Weight: 0.04 ounces, 1.122 grams



### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified. Single phase, half wave, 60 Hz, resistive or inductive load.

PARAMETER	SYMBOL	SB520	SB530	SB540	SB550	SB560	UNITS
Maximum Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	20	30	40	50	60	V
Maximum RMS Voltage	V <sub>RMS</sub>	14	21	28	35	42	V
Maximum DC Blocking Voltage	V <sub>DC</sub>	20	30	40	50	60	V
Maximum Average Forward Rectified Current (See Fig 1)	I <sub>F(AV)</sub>	5					A
Peak Forward Surge Current : 8.3ms single half sine-wave superimposed on rated load	I <sub>FSM</sub>	150					A
Maximum Forward Voltage at 5A (NOTES 3)	V <sub>F</sub>	0.55			0.7		V
Maximum DC Reverse Current at Rated DC Blocking Voltage T <sub>J</sub> =25°C T <sub>J</sub> =100°C	I <sub>R</sub>	0.2 50			0.1 50		mA
Typical Thermal Resistance (NOTES 2) (NOTES 1) (NOTES 1)	R <sub>θJA</sub> R <sub>θJC</sub> R <sub>θJL</sub>	50 12 15					°C / W
Power Dissipation	P <sub>D</sub>	5					W
Operating Junction Temperature Range	T <sub>J</sub>	-55 to +125		-55 to +150			°C
Storage Temperature Range	T <sub>STG</sub>	-55 to +150					°C

#### NOTES :

- Measured at ambient temperature at a distance of 9.5mm from the case
- Minimum Pad Area
- Pulse test : 300μs pulse width, 1% duty cycle

## SB520 SERIES

### RATING AND CHARACTERISTIC CURVES

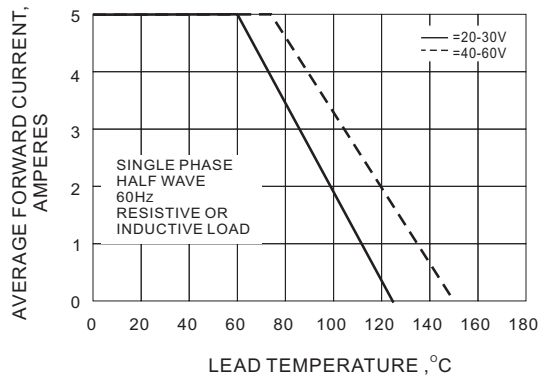


Fig.1 FORWARD CURRENT DERATING CURVE

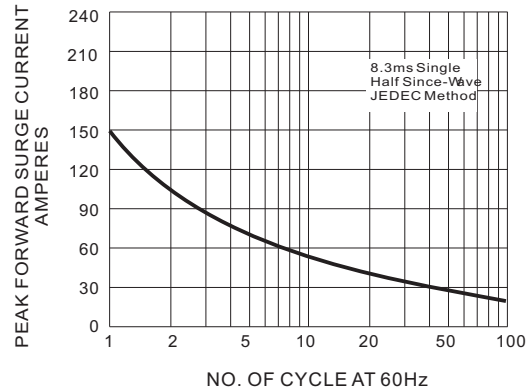


Fig.2 MAXIMUM NON - REPETITIVE SURGE CURRENT

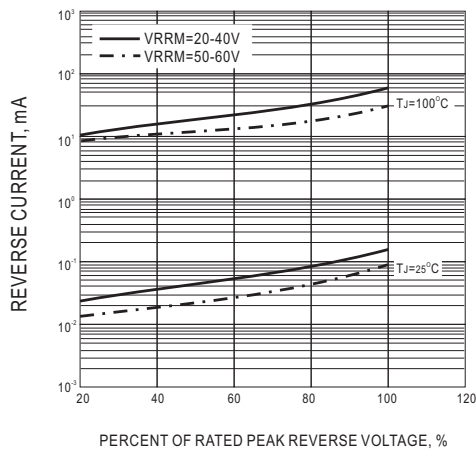


Fig.3 TYPICAL REVERSE CHARACTERISTIC

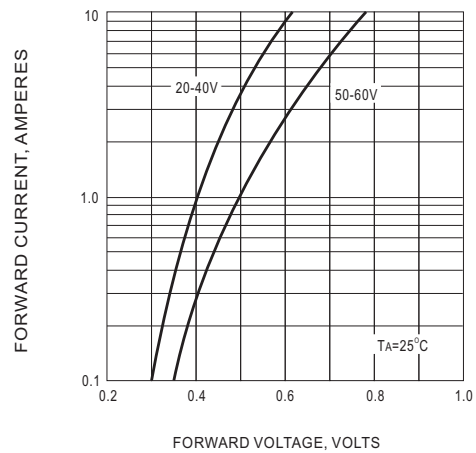


Fig.4 TYPICAL INSTANTANEOUS FORWARD CHARACTERISTIC

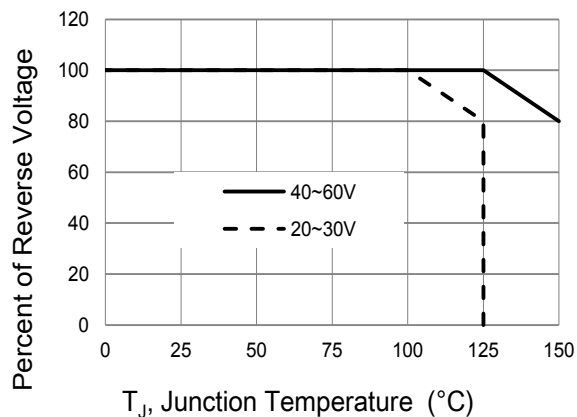


Fig.5 Operating Temperature Derating Curve

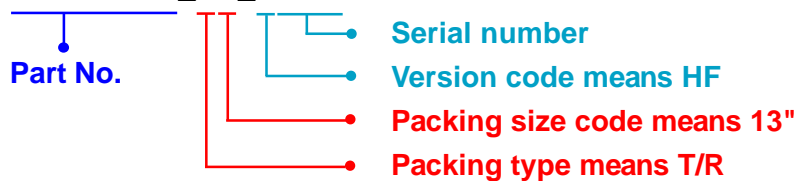
## SB520 SERIES

### Part No\_packing code\_Version

SB520\_AY\_00001  
SB520\_AY\_10001  
SB520\_B0\_00001  
SB520\_B0\_10001  
SB520\_R2\_00001  
SB520\_R2\_10001

### For example :

RB500V-40 R2 00001



Packing Code XX				Version Code XXXXX		
Packing type	1 <sup>st</sup> Code	Packing size code	2 <sup>nd</sup> Code	HF or RoHS	1 <sup>st</sup> Code	2 <sup>nd</sup> ~5 <sup>th</sup> Code
Tape and Ammunition Box (T/B)	A	N/A	0	HF	0	serial number
Tape and Reel (T/R)	R	7"	1	RoHS	1	serial number
Bulk Packing (B/P)	B	13"	2			
Tube Packing (T/P)	T	26mm	X			
Tape and Reel (Right Oriented) (TRR)	S	52mm	Y			
Tape and Reel (Left Oriented) (TRL)	L	PANASERT T/B CATHODE UP (PBCU)	U			
FORMING	F	PANASERT T/B CATHODE DOWN (PBCD)	D			



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