



DATA SHEET

SB520 thru SB5200

SCHOTTKY BARRIER RECTIFIERS

VOLTAGE 20 to 200 Volt **CURRENT** 5 Ampere

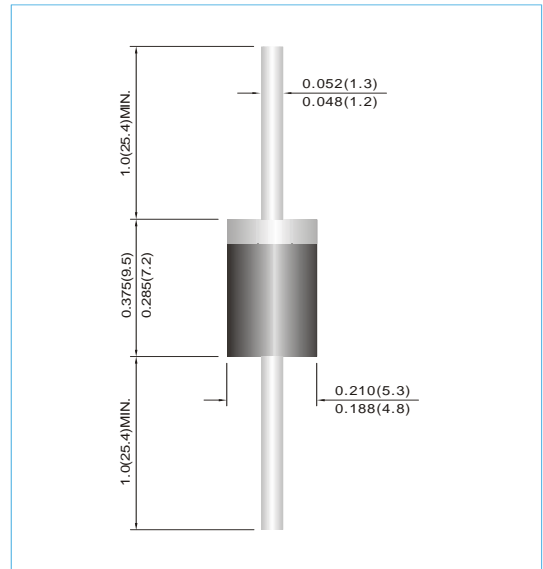
DO-201AD Unit : inch(mm)

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.
- Lead free in compliance with EU RoHS 2011/65/EU directive

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, 1.142 grams



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

PARAMETER	SYMBOL	SB520	SB530	SB540	SB550	SB560	SB580	SB590	SB5100	SB5150	SB5200	UNITS	
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	20	30	40	50	60	80	90	100	150	200	V	
Maximum RMS Voltage	V_{RMS}	14	21	28	35	42	56	63	70	105	140	V	
Maximum DC Blocking Voltage	V_{DC}	20	30	40	50	60	80	90	100	150	200	V	
Maximum Average Forward Rectified Current (See Fig 1)	$I_{F(AV)}$	5										A	
Peak Forward Surge Current : 8.3ms single half sine-wave superimposed on rated load	I_{FSM}	150										A	
Maximum Forward Voltage at 5A (NOTES 3)	V_F	0.55			0.7		0.85		0.92			V	
Maximum DC Reverse Current at Rated DC Blocking Voltage $T_J=25^{\circ}C$ $T_J=100^{\circ}C$	I_R	0.2			50		0.1		50			mA	
Typical Thermal Resistance (NOTES 2) (NOTES 1) (NOTES 1)	$R_{\theta JA}$ $R_{\theta JC}$ $R_{\theta JL}$						50		12		15		$^{\circ}C / W$
Power Dissipation	P_D						5					W	
Operating Junction Temperature Range	T_J	-55 to +125			-55 to +150						$^{\circ}C$		
Storage Temperature Range	T_{STG}	-55 to +150										$^{\circ}C$	

NOTES:

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



RATING AND CHARACTERISTIC CURVES

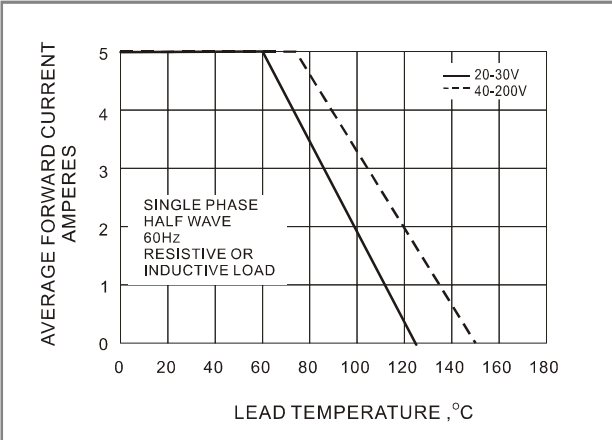


Fig.1 FORWARD CURRENT DERATING CURVE

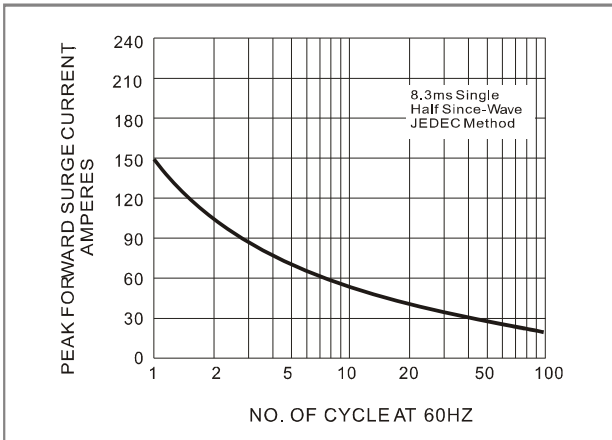


Fig.2 TMAXIMUM NON - REPETITIVE SURGE CURRENT

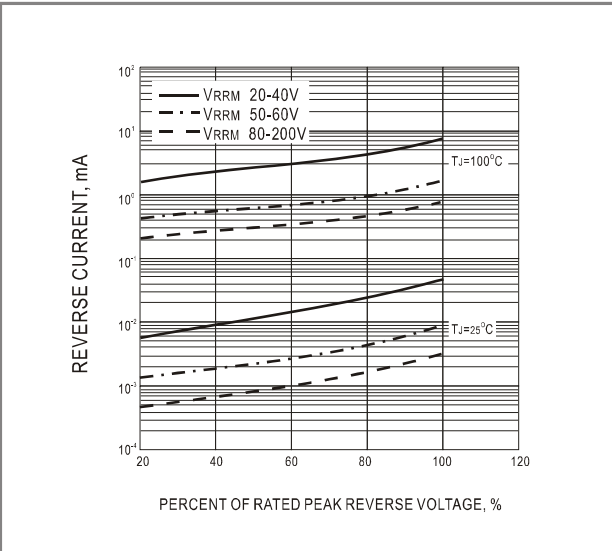


Fig.3 TYPICAL REVERSE CHARACTERISTIC

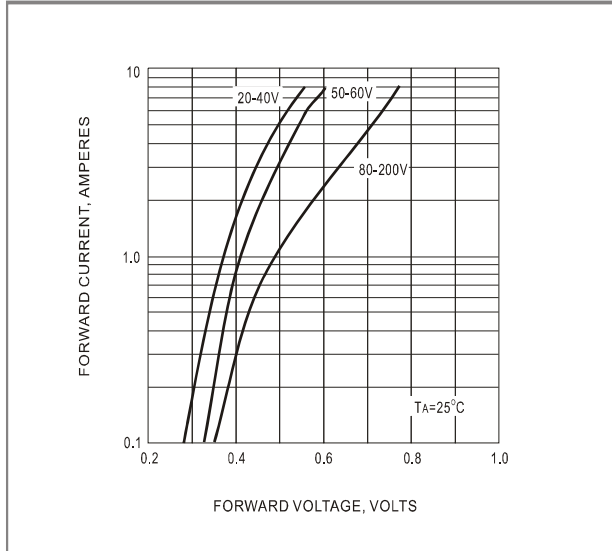


Fig.4 TYPICAL INSTANTANEOUS FORWARD CHARACTERISTIC

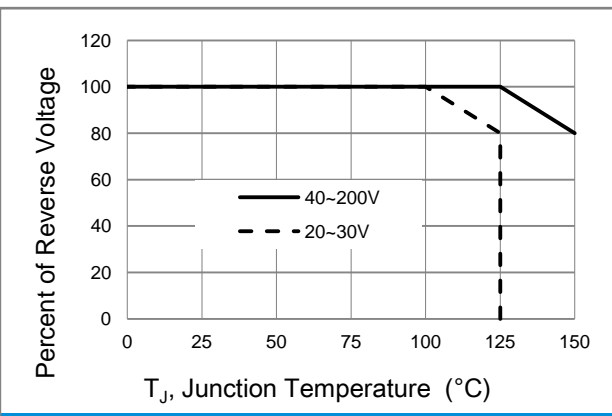


Fig.5 Operating Temperature Derating Curve



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 XXXXXX		
Packing type	1 st Code	Packing size code	2 nd Code	HF or RoHS	1 st Code	2 nd ~5 th 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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