



SB540L THRU SB5200L

5.0 AMP. LOW VF 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 dented 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	SB 540L	SB 545L	SB 550L	SB 560L	SB 580L	SB 5100L	SB 5150L	SB 5200L	Unit
Maximum Repetitive Peak Reverse Voltage	V _{RRM}	40	45	50	60	80	100	150	200	V
Maximum RMS Voltage	V _{RMS}	28	31.5	35	42	56	70	105	140	V
Maximum DC Blocking Voltage	V _{DC}	40	45	50	60	80	100	150	200	V
Average Forward Rectified @T _L =100℃	I _{F(AV)}	5.0								A
Non-Repetitive Peak Forward Surge @T _j =25℃ Current 8.3ms Single half sine-wave@T _j =125℃ Superimposed On Rated Load(JEDEC Method)	I _{FSM}	140								A
		112								
Non-Repetitive Peak Forward Surge @T _j =25℃ Current 1.0ms Single half sine-wave@T _j =125℃ Superimposed On Rated Load(JEDEC Method)	I _{FSM}	280								A
		224								
10000 times of the wave surge current IFSM (time width 1ms, time interval 3s)	I _{FSM}	105								A
I ² t Rating for Fusing (t<8.3ms)	I ² t	81.34								A ² s
Forward Voltage @IF=5.0A	V _{FM}	0.45			0.5	0.6		0.85		V
Peak Reverse Current @T _A =25℃	I _R	0.2					0.1			mA
At Rated DC Blocking Voltage @T _A =100℃		10.0					5.0			
Typical Junction Capacitance (Note 1)	C _J	300					170			pF
Typical Thermal Resistance Junction to Ambient	R _{θJA}	50								℃/W
Operating Temperature Range	T _J , T _{STG}	-55 to+150								℃

Note:1. Measured at 1.0 MHz and Applied reverse Voltage of 4.0V D.C



4. Rating And Characteristic Curves

FIG.1: Forward Current Derating Curve

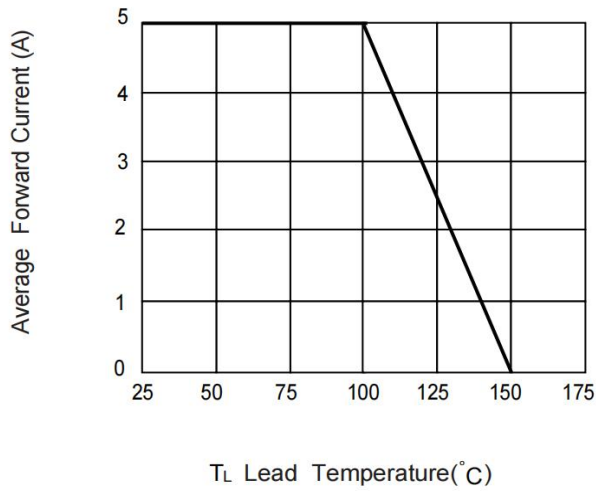


Fig. 2 Typ. Forward Characteristics

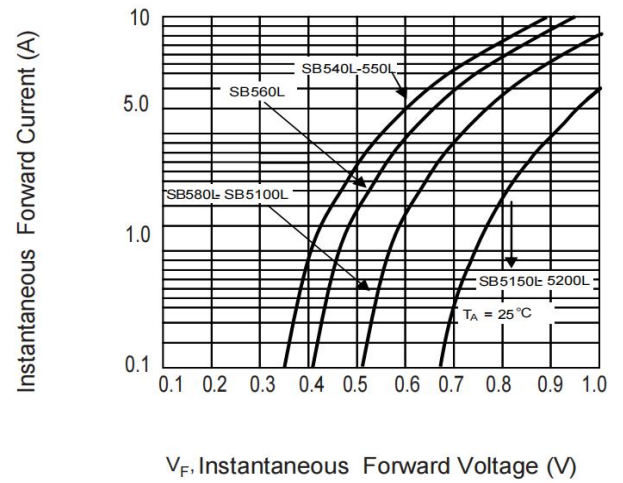


Fig. 3 Max Non-Repetitive Peak Fwd Surge Current

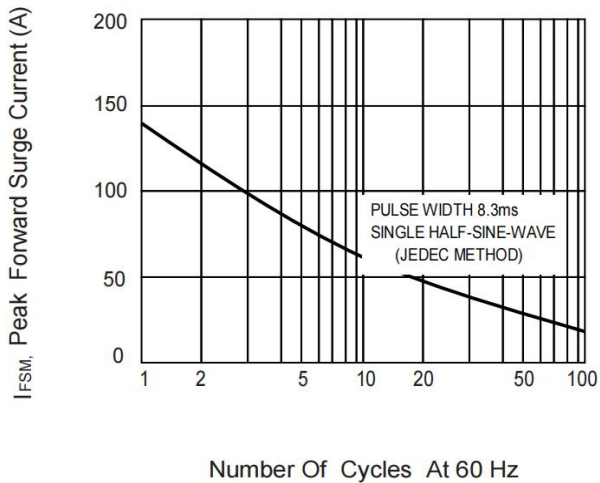
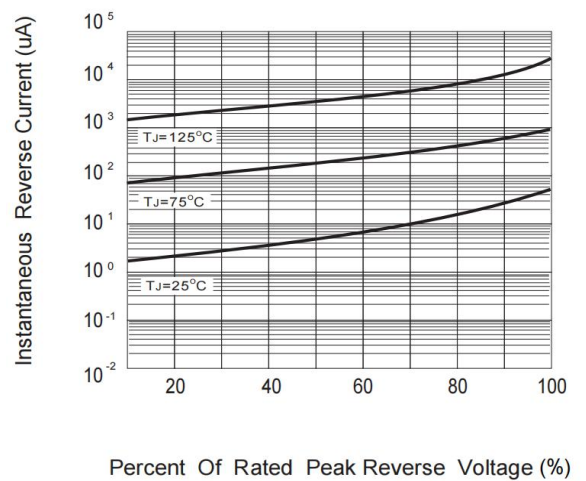


Fig.4 Typical Reverse Characteristics





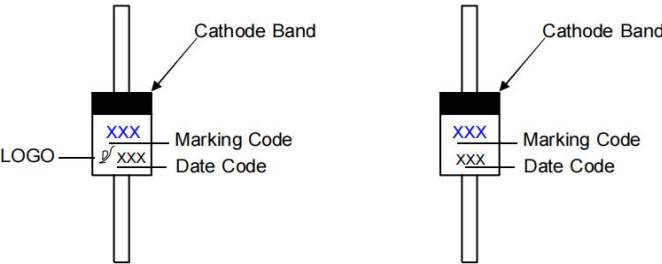
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5. Dimensions



6. Part Marking System



7. Package Information

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



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