乐山无线电股份有限公司
Leshan Radio Company, Ltd

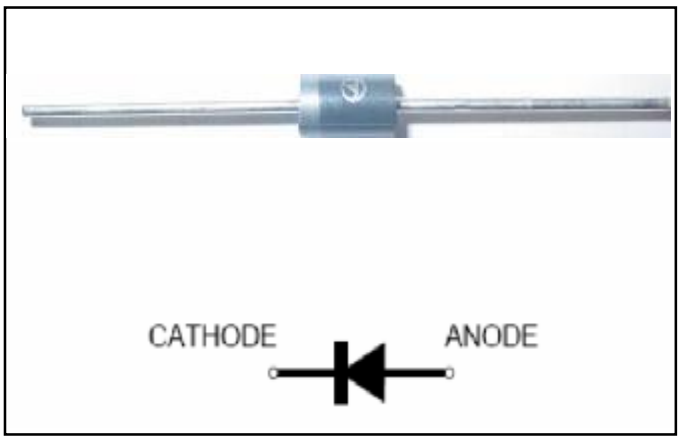
SB5150&SB5200

Schottky Barrier Rectifiers

Reverse Voltage 150V&200V Forward Current 5.0A

Feature & Dimensions

* Plastic package has Underwriters Laboratory Flammability Classification 94V-0
* Low power loss,high efficiency
* For use in low voltage high frequency inverters, free wheeling,and polarity protection applications
* Guarding for over voltage protection
* High temperature soldering guaranteed: 260°C/10 seconds at terminals



We declare that the material of product compliance with ROHS requirements

Mechanical Data

Case: JEDEC DO-201AD, molded plastic over sky die
Terminals: Plated axial leads, solderable per MIL-STD-750, Method 2026
Polarity: Color band denotes cathode end
Mounting Position: Any
Weight: 0.038 oz., 1.03 g
Handling precautin:None

1.Electrical Characteristic

Maximum& Thermal Characteristics Ratings at 25°C ambient temperature unless otherwise specified.

Parameter Symbol	symbol	SB5150	SB5200	Unit
device marking code		SB5150	SB5200	
Maximum repetitive peak reverse voltage	V_{RRM}	150	200	V
Maximum RMS voltage	V_{RMS}	105	140	V
Maximum DC blocking voltage	V_{DC}	150	200	V
Maximum average forward rectified current 0.375" (9.5mm) lead length (See fig. 1)	IF(AV)	5.0		A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	100		A
thermal resistance, junction to ambient	RθJA	40		°C/W
thermal resistance, junction to case	RθJC	5		°C/W
Operating temperature range	TJ	–55 to +150		°C
storage temperature range	TSTG	–55 to +150		°C

Electrical Characteristics Ratings at 25°C ambient temperature unless otherwise specified.

Parameter Symbol	symbol	SB5150	SB5200	Unit
Maximum instantaneous forward voltage at 5.0A	V_F	0.87		V
Maximum DC reverse current TA = 25°C at rated DC blocking voltage TA = 100°C	IR	0.1 5		mA
Typical junction capacitance at 4.0V, 1MHz	CJ	160		PF

SB5150&SB5200

2. Characteristic Curves (TA = 25°C unless otherwise noted)

Fig. 1 – Forward Current Derating Curve

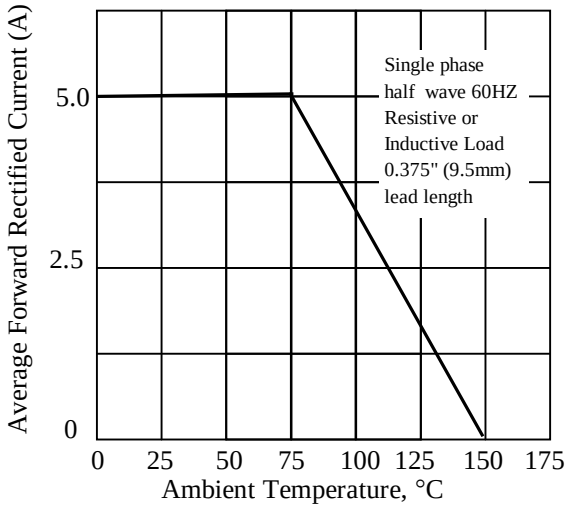


Fig. 2 – Maximum Non-repetitive Peak Forward Surge Current

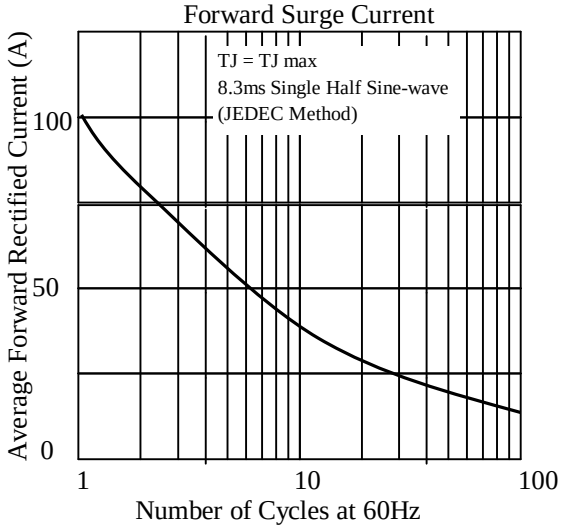


Fig 3. – Typical Instantaneous Forward Characteristics

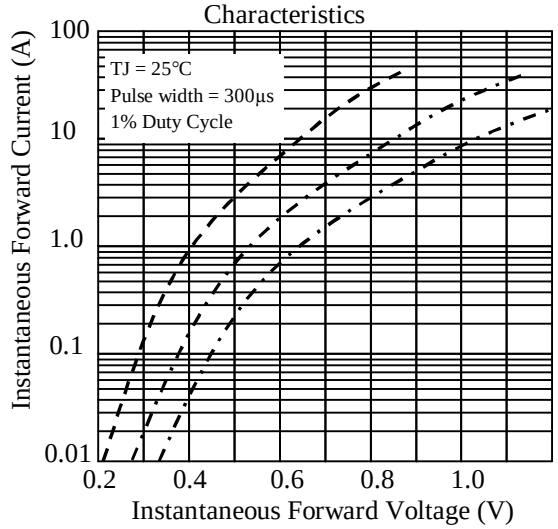


Fig 4. – Typical Reverse Characteristics

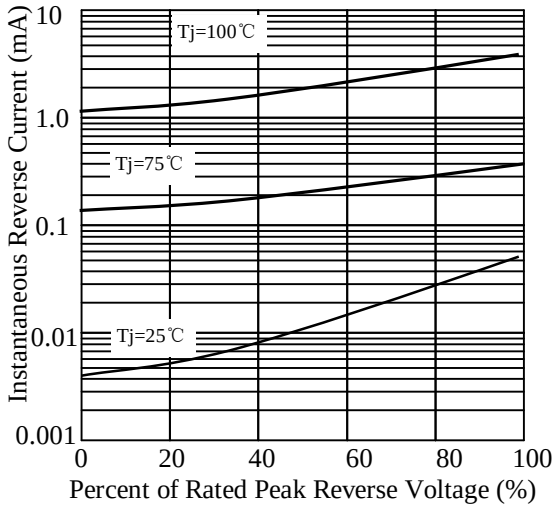


Fig 5. – typical transient thermal impedance

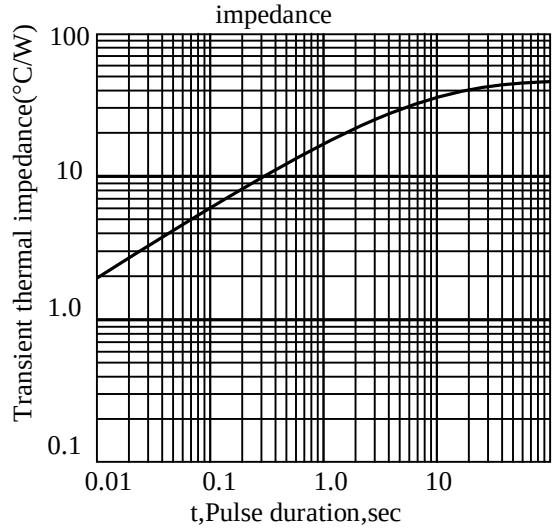
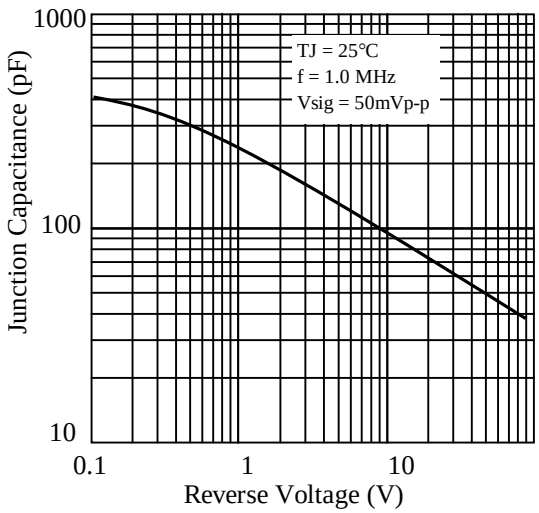


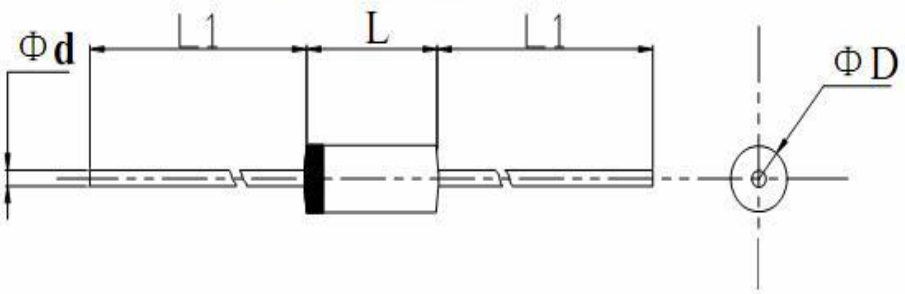
Fig 6. – Typical Junction Capacitance



SB5150&SB5200

3. dimension:

Package outline



Dimensions					Note:
	inches		mm		DO-201AD
	Min.	Max.	Min.	Max.	molded plastic case
L	0.335	0.375	8.5	9.5	The marking band indicates the
L1	1.0	-	25.4	-	cathode
ΦD	0.197	0.220	5.0	5.6	
Φd	0.048	0.052	1.2	1.3	

4. Update Record

版次	更新记录	更新作者	更新日期
1	第一版	周杰	**2011.7.19**