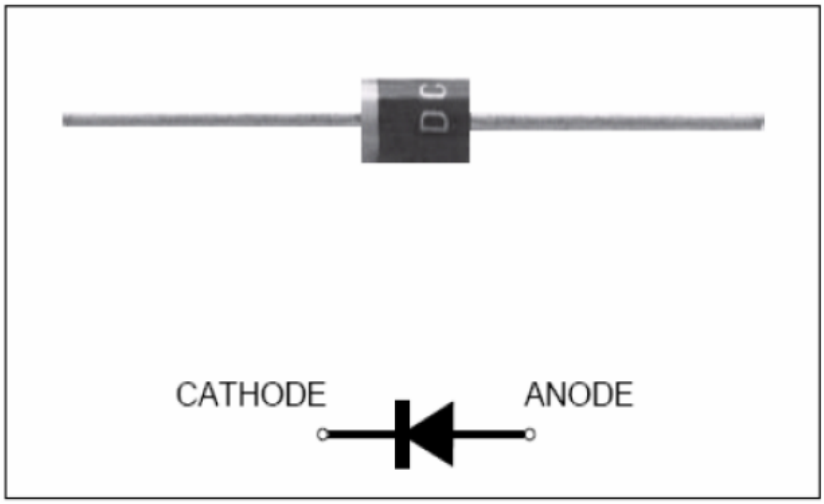
SB520 thru SB5100

1.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

Schottky Barrier Rectifiers

Reverse Voltage 20 to 100V
Forward Current 5.0A



We declare that the material of product compliance with RoHS requirements.

2.Mechanical Data

Case: JEDEC DO-201AD, molded plastic over glass body
Terminals: Plated axial leads, solderable per MIL-STD-750, Method 2026
Polarity: Color band denotes cathode end
Mounting Position: Any
Weight: 0.04 oz., 1.13 g
Handling precautin:None

3.Electrical Characteristic

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

Parameter Symbol	symbol	SB520	SB530	SB540	SB550	SB560	SB580	SB5100	Unit
Maximum repetitive peak reverse voltage	V_{RRM}	20	30	40	50	60	80	100	V
Maximum RMS voltage	V_{RMS}	14	21	28	35	42	56	70	V
Maximum DC blocking voltage	V_{DC}	20	30	40	50	60	80	100	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}	150							A
Operating junction and storage temperature range	TJ, TSTG	–40 to +125							°C

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

Parameter Symbol	symbol	SB520	SB530	SB540	SB550	SB560	SB580	SB5100	Unit
Maximum instantaneous forward voltage at 5.0A	V_F	0.50			0.70		0.84		V
Maximum DC reverse current TA = 25°C at rated DC blocking voltage TA = 100°C	IR	0.5 20							mA
Typical thermal resistance (Note 2)	RθJA	25							°C/W
Typical junction capacitance at 4.0V, 1MHz	CJ	500			380				PF

NOTES:
1. Thermal resistance from junction to ambient at 0.375” (9.5mm) lead length, P.C.B. mounted

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

Fig. 1 – Forward Current Derating Curve

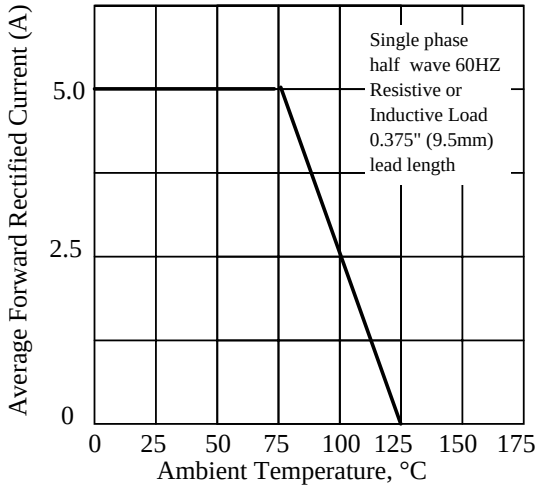


Fig. 2 – Maximum Non-repetitive Peak Forward Surge Current

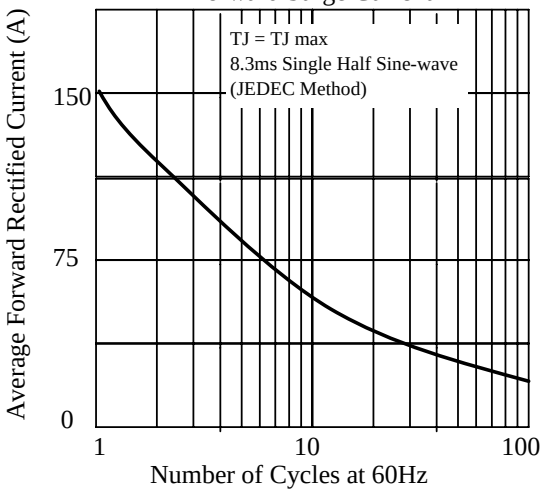


Fig 3. – Typical Instantaneous Forward Characteristics

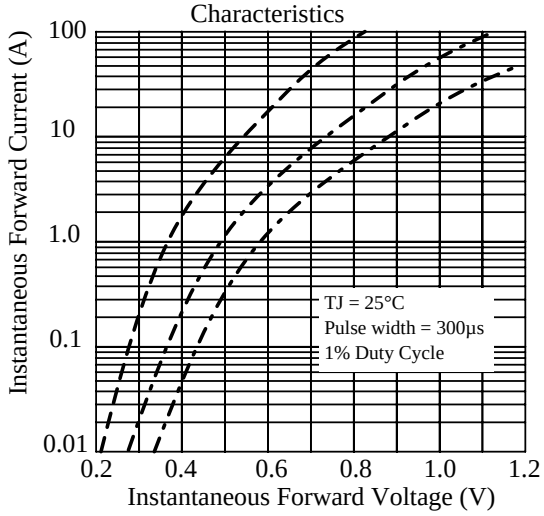


Fig 4. – Typical Reverse Characteristics

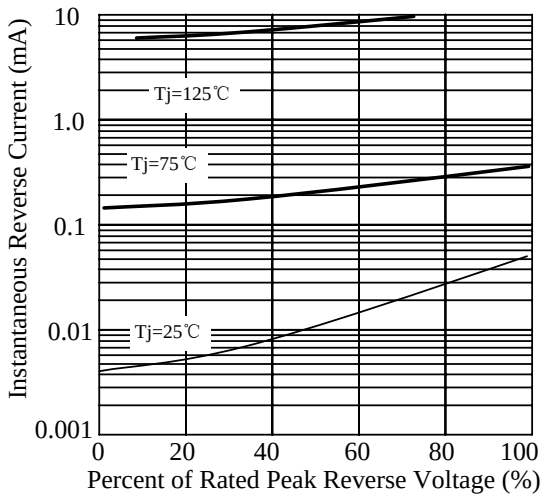


Fig 5. – typical transient thermal impedance

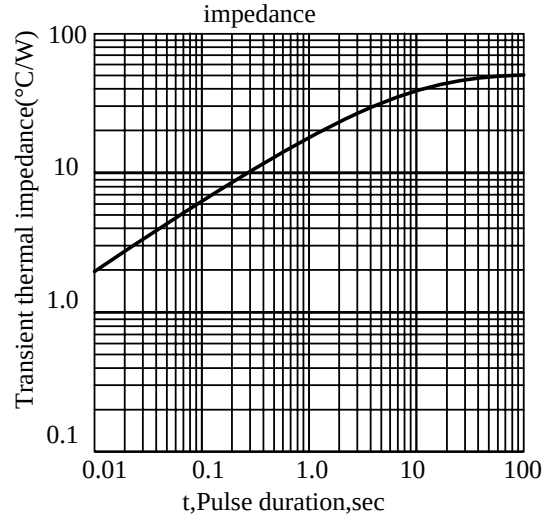
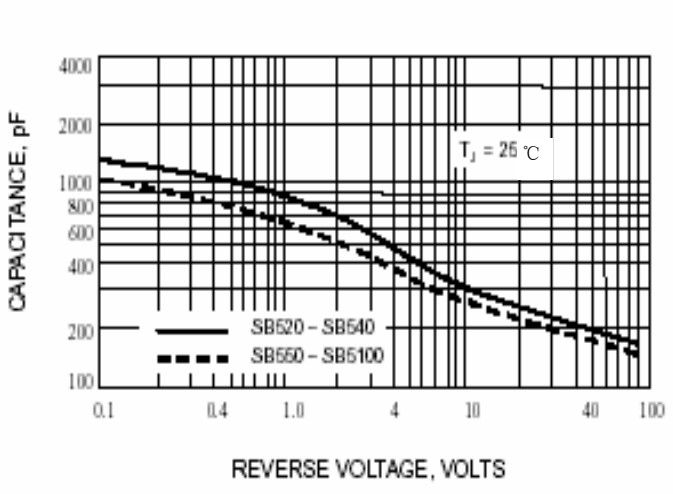
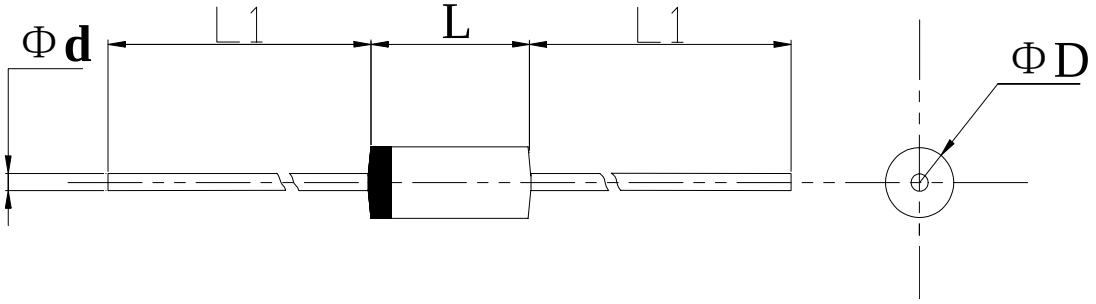


Fig 6. – Typical Junction Capacitance



5.Package Dimensions in inches and (millmeters)

Package outline



Dimensions				
	inches		mm	
	Min.	Max.	Min.	Max.
L	0.335	0.375	8.5	9.5
L1	1.0	-	25.4	-
ΦD	0.197	0.220	5.0	5.6
Φd	0.048	0.052	1.2	1.3

Note:
DO-201AD
molded plastic case
The marking band indicates the cathode