

■ **FEATURES**

- High frequency operation
- Low forward voltage drop
- High purity, high temperature epoxy encapsulation for enhanced mechanical strength and moisture resistance
- Guard ring for enhanced ruggedness and long term reliability
- Solder dip 275 °C max. 7s, per JESD 22-B106

■ **TYPICAL APPLICATIONS**

Typical applications are in switching power supplies, converters, freewheeling diodes, and reverse battery protection.

■ **MECHANICAL DATA**

- **Package:** DO-201AD
Molding compound meets UL 94 V-0 flammability rating, RoHS-compliant
- **Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102
- **Polarity:** Color band denotes cathode end

■ **MAXIMUM RATINGS** (T_a=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	SB1240
Device Marking Code			SB1240
Repetitive Peak Reverse Voltage	VRRM	V	45
Average Rectified Output Current @60Hz sine wave, R-load, T _a =25°C	I _O	A	12
Surge(Non-repetitive)Forward Current @60Hz half sine wave, 1 cycle, T _a =25°C	IFSM	A	275
Current Squared Time @1ms≤t≤8.3ms T _j =25°C	I ² t	A ² s	315
Storage Temperature	T _{stg}	°C	-55 ~+150
Junction Temperature IN DC Forward Mode-Forward Operations, without reverse bias, t ≤1 h (Fig. 1)①	T _j	°C	-55 ~+200

NOTE ① Meets the requirements of IEC 61215 Ed. 2 bypass diode thermal test.

■ **ELECTRICAL CHARACTERISTICS** (T_a=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	SB1240
Maximum instantaneous forward voltage drop per diode	V _{FM}	V	I _{FM} =12.0A	0.55
Maximum DC reverse current at rated DC blocking voltage per diode	I _{RRM1}	mA	V _{RM} =V _{RRM} T _a =25°C	0.5
	I _{RRM2}		V _{RM} =V _{RRM} T _a =100°C	20

■ **THERMAL CHARACTERISTICS** (T_a=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	SB1240
Thermal Resistance Between junction and case	R _{θJ-C}	°C/W	1.9

■ **PACKAGING INFORMATION**

PREFERRED P/N	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
SB1240	Approximate 1.12	1250	4	6000	Reel

■ **CHARACTERISTICS (TYPICAL)**

FIG1: I_o -T_c Curve

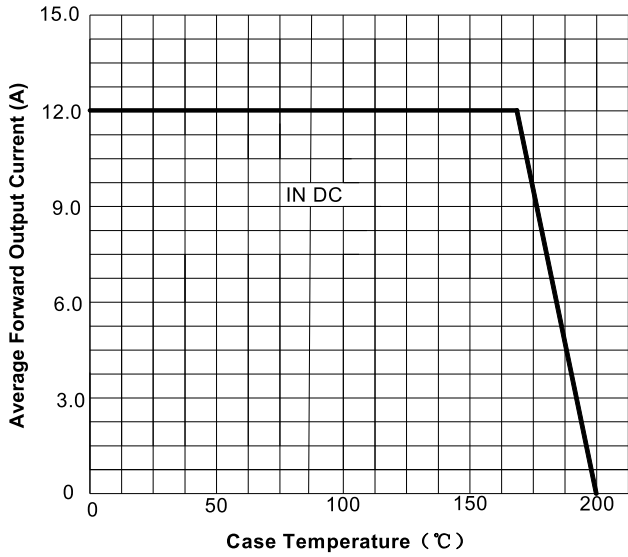


FIG2: Surge Forward Current Capability

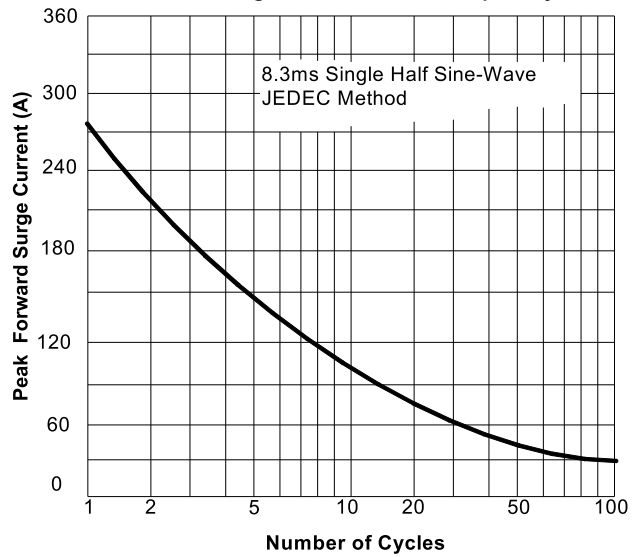


FIG3: Forward Voltage

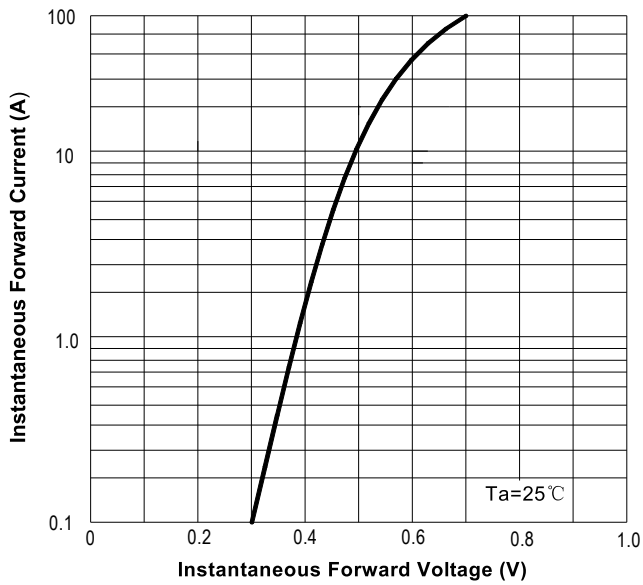
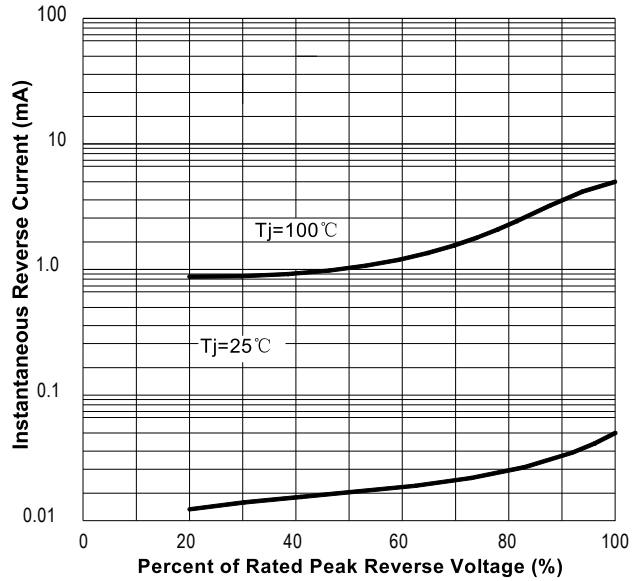
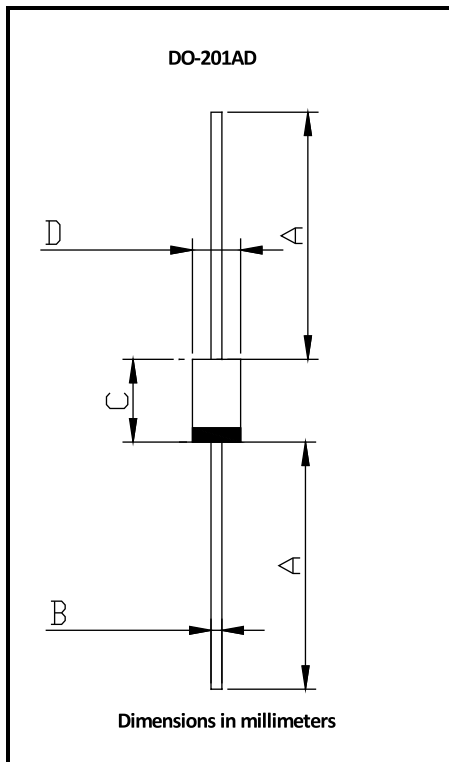


FIG4: Typical Reverse Characteristics



■ **OUTLINE DIMENSIONS**



DO-201AD		
Dim	Min	Max
A	26.26	26.46
B	1.212	1.228
C	9.11	9.21
D	5.05	5.15