

FEATURES

- ✧ High current capability, low forward voltage
- ✧ Excellent high temperature stability
- ✧ Low power loss, and high efficiency
- ✧ High forward surge capability
- ✧ RoHS compliant
- ✧ Trench MOS Schottky technology

MACHANICAL DATA

- ✧ Case: DO-201AD(DO-27) plastic package
- ✧ Terminal: Matte tin plated, solderable per MIL-STD-750, Method 2026
- ✧ Molding Compound Flammability Rating:UL94-0
- ✧ High temperature soldering guaranteed: 260°C/10second
- ✧ Packed with FRP substrate and epoxy underfilled

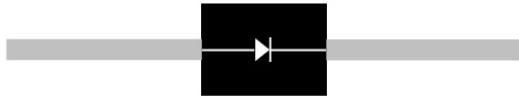
ORDERING INFORMATION

- ✧ Device: SB3100U
- ✧ Package: DO-201AD(DO-27)
- ✧ Marking: SB3100U
- ✧ Material: RoHS compliant
- ✧ Packing: Tape & Ammo
- ✧ Quantity per box: 1,250pcs

APPLICATIONS

- ✧ Switching mode power supply applications
- ✧ Portable equipment battery applications
- ✧ High frequency rectification
- ✧ DC/DC converter

PIN CONFIGURATION



PACKAGE OUTLINE



ABSOLUTE MAXIMUM RATING (Tamb=25°C, unless otherwise specified)

Symbol	Parameter	Value	Units
V_{RRM}	Repetitive Peak Reverse Voltage	100	V
$I_{F(AV)}$	Average Forward Current	3	A
I_{FSM}	Peak Forward Surge Current, 8.3ms single half sine-wave	80	A
T_J & T_{STG}	Junction and Storage Temperature	-40~+150	°C

ELECTRICAL CHARACTERISTICS (Tamb=25°C, unless otherwise specified)

Symbol	Parameter	Test Condition	Min	Typ	Max	Units
V _F	Forward Voltage	I _F = 3A Ta=25°C		0.59	0.65	V
		I _F = 3A Ta=125°C		0.53		V
V _R	Reverse Breakdown Voltage	I _R = 0.5mA	100			V
I _R	Reverse Leakage Current	V _R = 100V Ta=25°C			50	μA
		V _R = 100V Ta=125°C			10	mA

ELECTRICAL CHARACTERISTICS CURVE

Fig 1 Typical Forward Current Derating Curve

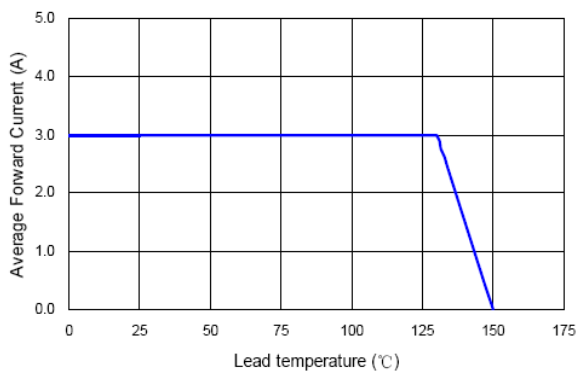


Fig 2 Typical Instantaneous Forward Characteristics

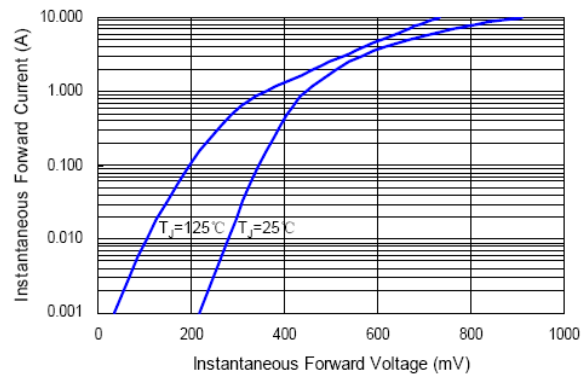


Fig 3 Max. Non-repetitive Forward Surge Current

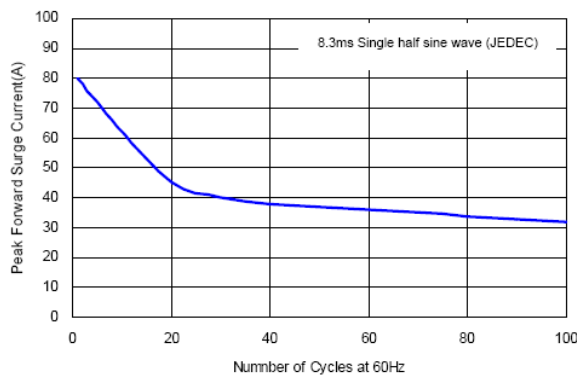
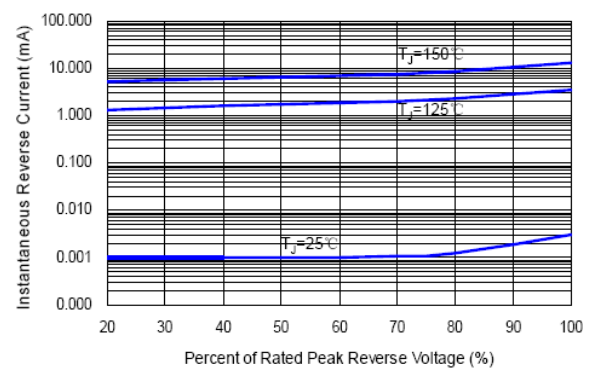
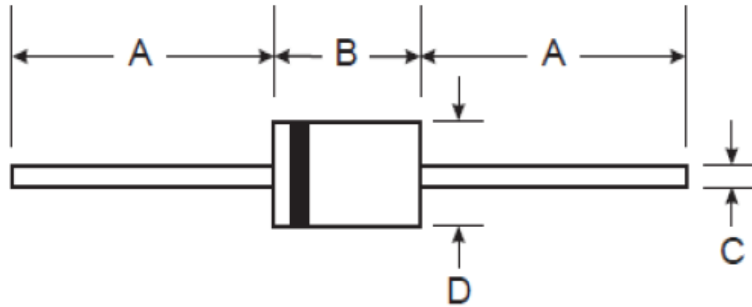


Fig 4 Typical Reverse Characteristics



DO-201AD(DO-27) PACKAGE OUTLINE DIMENSIONS



DO-201AD(DO-27) Plastic				
Dim	Min		Max	
	Inch	mm	Inch	mm
A	1.0	25.4	-	-
B	0.285	7.2	0.375	9.5
C	0.039	1.0	0.052	1.3
D	0.190	4.8	0.210	5.3