

FEATURES

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

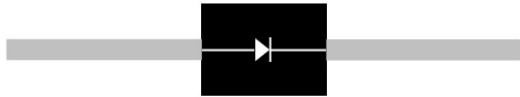
ORDERING INFORMATION

- ✧ Device: SB1045L
- ✧ Package: DO-201AD(DO-27)
- ✧ Marking: SB1045L
- ✧ 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	45	V
$I_{F(AV)}$	Average Forward Current	10	A
I_{FSM}	Peak Forward Surge Current, 8.3ms single half sine-wave	250	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	$I_F = 3A @ 25^\circ C$		0.34		V
		$I_F = 5A @ 25^\circ C$		0.38	0.42	V
		$I_F = 10A @ 25^\circ C$		0.43	0.47	V
		$I_F = 3A @ 125^\circ C$		0.27		V
		$I_F = 5A @ 125^\circ C$		0.32		V
		$I_F = 10A @ 125^\circ C$		0.41	0.42	V
I_R	Reverse Leakage Current	$V_R = 45V @ 25^\circ C$			0.2	mA
		$V_R = 45V @ 125^\circ C$		8.5	10	mA
C_J	Junction Capacitance	$f=1MHz, V_R=4V$		600		pF
$R_{th(JA)}$	Thermal Resistance (note 1)			31		$^\circ C/W$

ELECTRICAL CHARACTERISTICS CURVE

Fig 1 Typical Forward Current Derating Curve

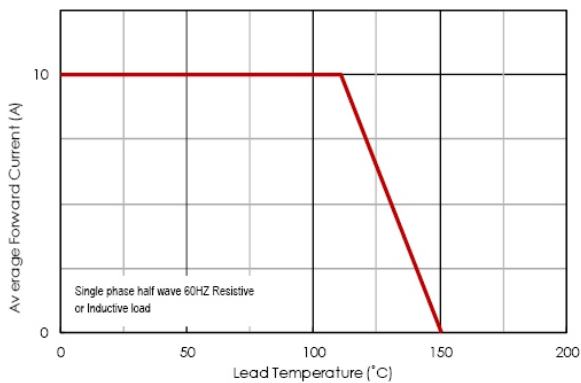


Fig 2 Typical Instantaneous Forward Characteristics

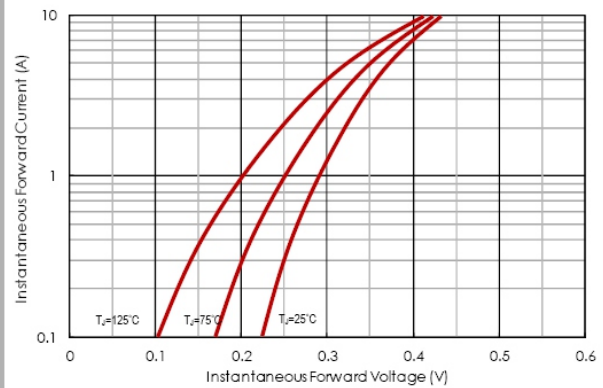


Fig 3 Max. Non-Repetitive Forward Surge Current

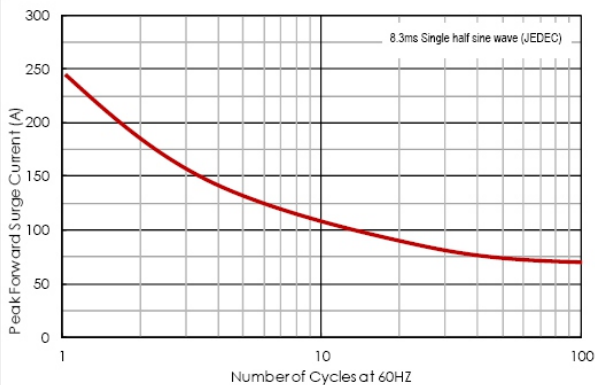
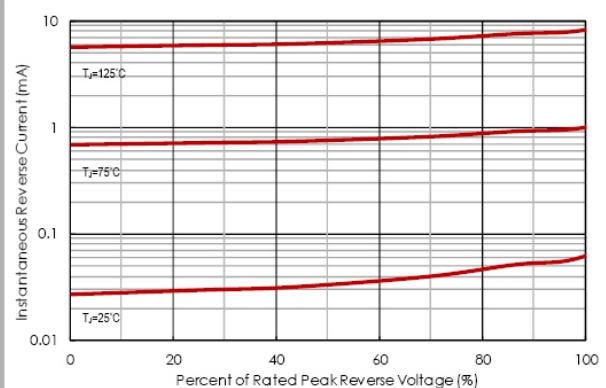
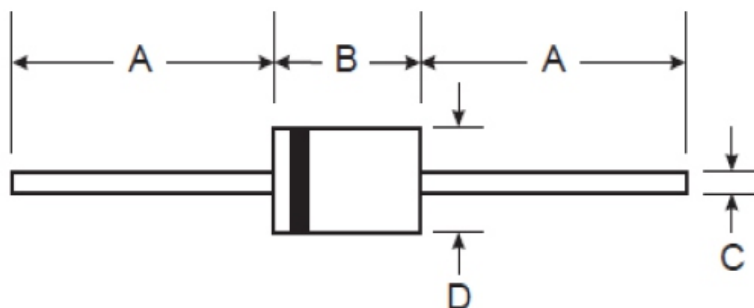


Fig 4 Typical Reverse Characteristics



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