

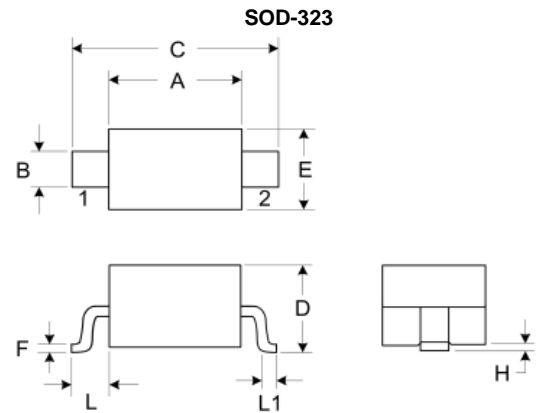
## SURFACE MOUNT SCHOTTKY BARRIER DIODE

### Features

- Schottky Barrier Chip
- Ideally Suited for Automatic Assembly
- Low Power Loss, High Efficiency
- Surge Overload Rating to 20A Peak
- For Use in Low Voltage Application
- Guard Ring Die Construction
- Plastic Case Material has UL Flammability Classification Rating 94V-O

### Mechanical Data

- Case: SOD-323, Molded Plastic
- Terminals: Solder Plated, Solderable per MIL-STD-750, Method 2026
- Polarity: Cathode Band or Cathode Notch
- Marking: Type Number
- Weight: 0.01 grams (approx.)
- **Lead Free: For RoHS / Lead Free Version**



SYMBOL	MILLIMETER		INCHES	
	MIN	MAX	MIN	MAX
A	1.600	1.800	0.063	0.071
B	0.250	0.350	0.010	0.014
C	2.500	2.700	0.098	0.106
D	0.000	1.000	0.000	0.039
E	1.200	1.400	0.470	0.055
F	0.080	0.150	0.003	0.006
L	0.475REF		0.019REF	
L1	0.250	0.400	0.010	0.016
H	-	0.100	-	0.004

### Maximum Ratings and Electrical Characteristics @ $T_A=25^\circ\text{C}$ unless otherwise specified

Characteristic	Symbol	SN45	Unit
Peak Repetitive Reverse Voltage	$V_{RRM}$	45	V
Working Peak Reverse Voltage	$V_{RWM}$		
DC Blocking Voltage	$V_R$		
RMS Reverse Voltage	$V_{R(RMS)}$	31.5	
Average Rectified Output Current @ $T_L = 25^\circ\text{C}$	$I_O$	0.1	A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	$I_{FSM}$	5	A
Forward Voltage @ $I_F = 10\text{mA}$	$V_{FM}$	0.45	
Peak Reverse Current @ $T_A = 25^\circ\text{C}$ At Rated DC Blocking Voltage @ $V_R=10\text{V}$	$I_{RM}$	1	$\mu\text{A}$
Typical Thermal Resistance (Note 1)	$R_{\theta JL}$ $R_{\theta JA}$	28 88	$^\circ\text{C/W}$
Typical Junction Capacitance @ $V_R=10\text{V}$ $f=1\text{MHZ}$	$C_j$	6.0	pF
Operating Temperature Range	$T_j$	-40 to +125	$^\circ\text{C}$
Storage Temperature Range	$T_{STG}$	-40 to +150	$^\circ\text{C}$

Note: 1. Mounted on P.C. Board with 5.0mm<sup>2</sup> copper pad area.

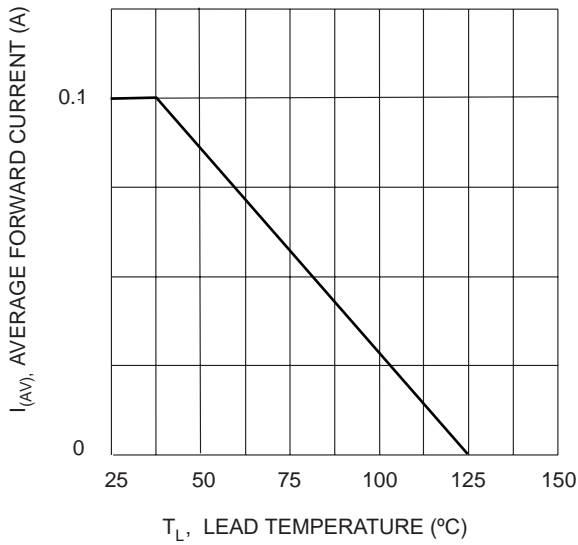


Fig. 1 Forward Current Derating Curve

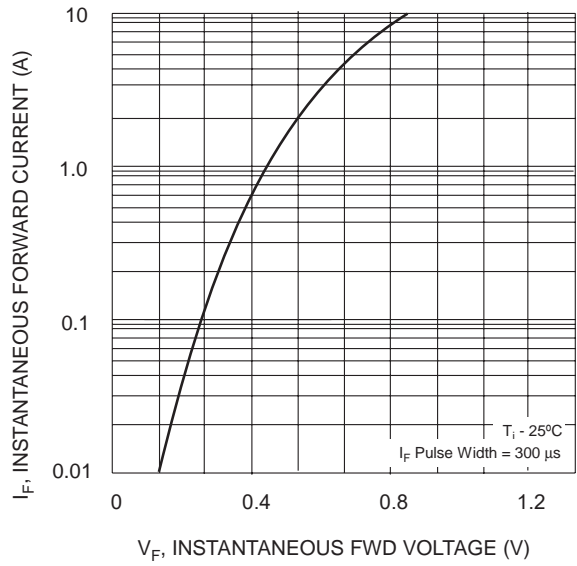


Fig. 2 Typ. Forward Characteristics

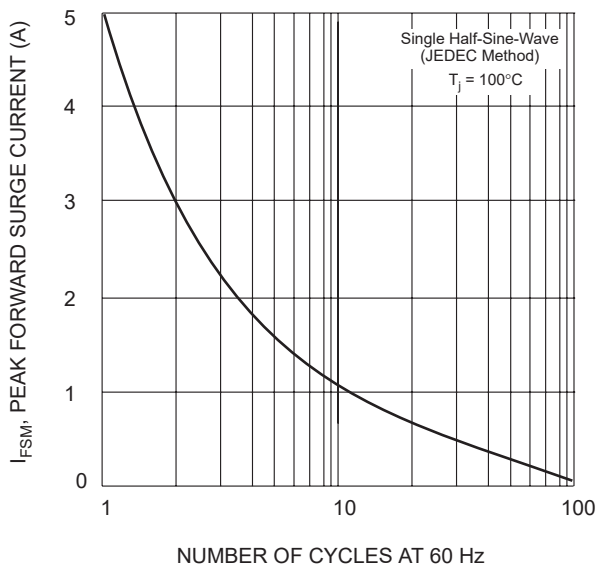


Fig. 3 Max Non-Repetitive Peak Fwd Surge Current

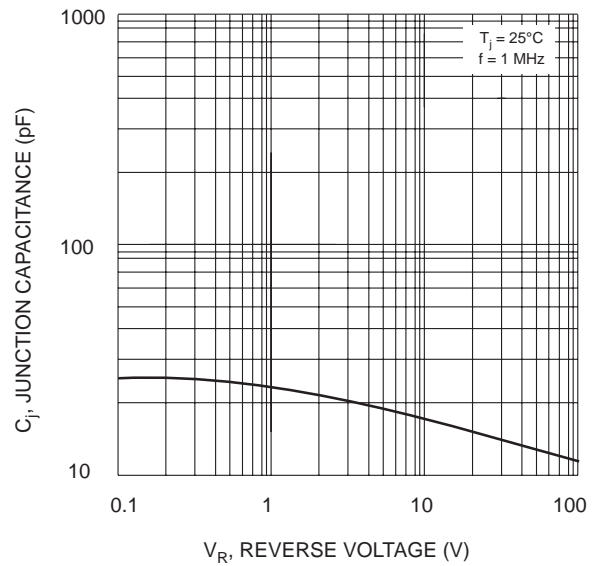


Fig. 4 Typical Junction Capacitance

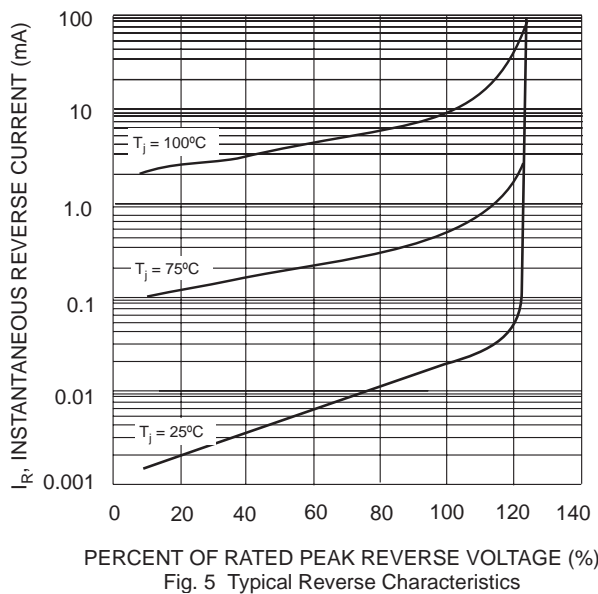


Fig. 5 Typical Reverse Characteristics