

## SCHOTTKY DIODES

### Features

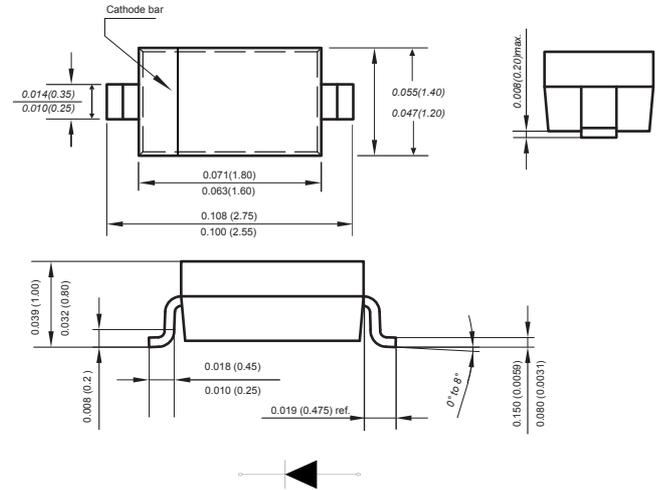
- ◆ Low forward voltage drop
- ◆ Fast switching time
- ◆ Surface mount package ideally suited for automatic insertion

**SOD-323**



### Mechanical Data

Case: JEDEC SOD-323 molded plastic body  
 Terminals: Plated leads solderable per MIL-STD-750, Method 2026  
 Polarity: Polarity symbols marked on case  
 Weight: 0.0007 ounce, 0.02 grams  
 Marking: L9



Dimensions in inches and (millimeters)

### Absolute Maximum Ratings at 25 °C

PARAMETER	SYMBOLS	BAT54WS	UNITS
DC Blocking voltage	$V_R$	30	V
Average rectified output current	$I_O$	200	mA
Forward continuous current	$I_{FM}$	200	mA
Repetitive peak forward current	$I_{FRM}$	300	mA
Forward surge current	$I_{FSM}$	13	A
Power dissipation	$P_d$	200	mW
Thermal resistance, junction to ambient air	$R_{\theta JA}$	435	°C/W
Junction temperature	$T_j$	-55 to +125	°C
Storage temperature	$T_{STG}$	-55 to +125	°C
Non-Repetitive peak reverse voltage	$V_{RM}$	30	V

### Characteristics at $T_a = 25\text{ °C}$

PARAMETER	SYMBOLS	Min.	Typ.	Max.	Unit	Conditions
Reverse breakdown voltage	$V_{(BR)R}$	30			V	$I_R = 100\mu A$
Forward voltage	$V_{F1}$			320	mV	$I_F = 1.0\text{mA}$
	$V_{F2}$			1000	mV	$I_F = 100\text{mA}$
Reverse current	$I_R$			2.0	$\mu A$	$V_R = 25\text{V}$
Capacitance between terminals	$C_T$			60	pF	$V_R = 0, f = 1.0\text{MHz}$
Reverse recovery time	$t_{rr}$			5.0	ns	$I_F = 10\text{mA}, I_R = 10\text{mA to } 1\text{mA}$ $R_L = 100\ \Omega$



## Typical Characteristics

Fig.1 Forward Current Derating Curve

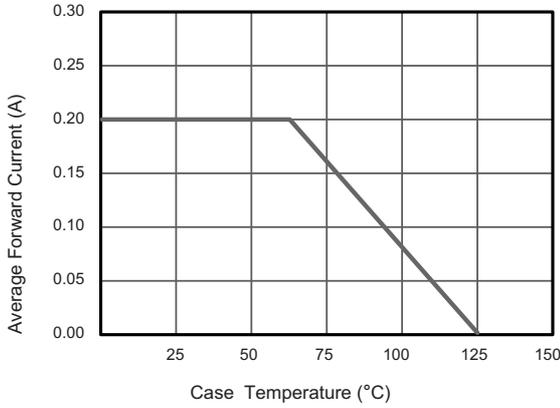


Fig.2 Typical Reverse Characteristics

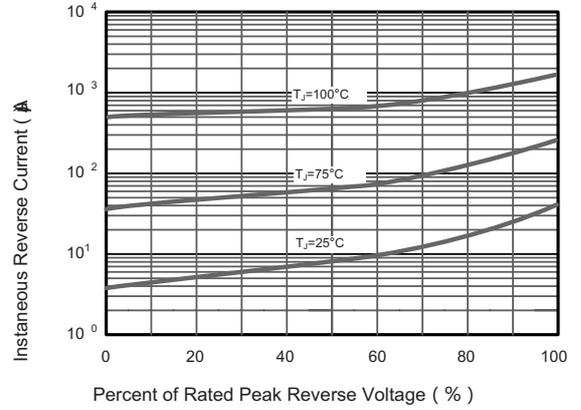


Fig.4 Typical Forward Characteristics

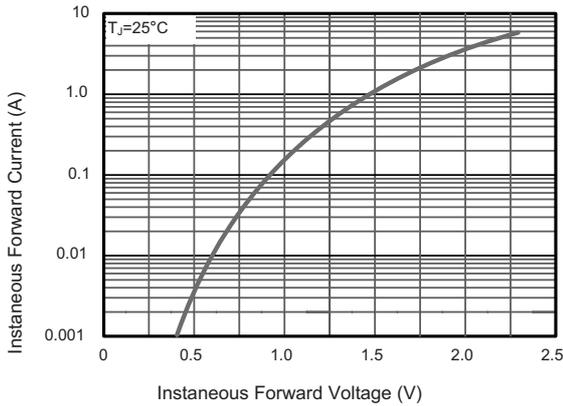


Fig.4 Typical Junction Capacitance

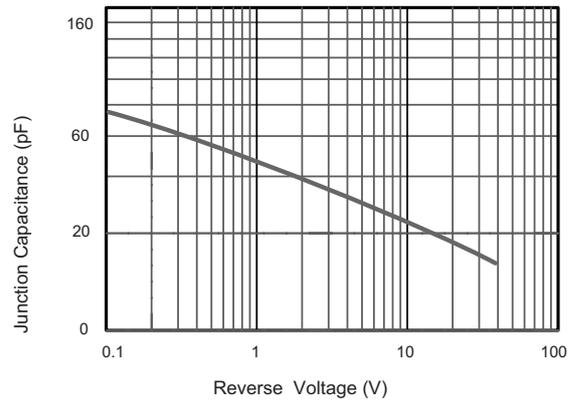


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current

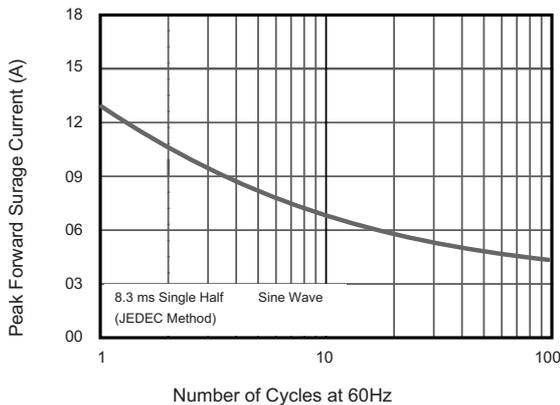
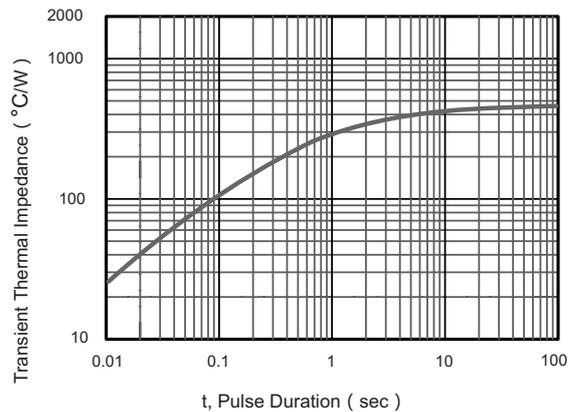
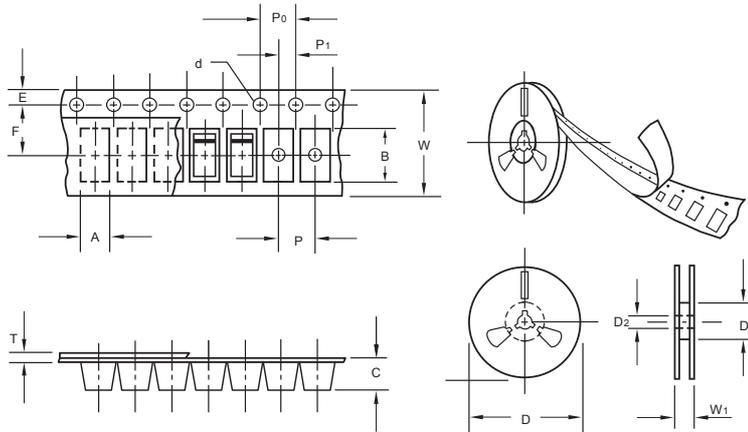


Fig.6 Typical Transient Thermal Impedance



The curve above is for reference only.

## Packing information



unit:mm

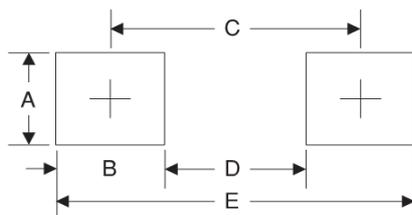
Item	Symbol	Tolerance	SOD-323
Carrier width	A	0.1	2.1
Carrier length	B	0.1	4.0
Carrier depth	C	0.1	1.60
Sprocket hole	d	0.05	1.55
7" Reel outside diameter	D	2.0	178.00
7" Reel inner diameter	D <sub>1</sub>	min	50.0
Feed hole diameter	D <sub>2</sub>	0.5	13.00
Sprocket hole position	E	0.1	1.75
Punch hole position	F	0.1	3.50
Punch hole pitch	P	0.1	4.00
Sprocket hole pitch	P <sub>0</sub>	0.1	4.00
Embossment center	P <sub>1</sub>	0.1	2.00
Overall tape thickness	T	0.1	0.25
Tape width	W	0.3	8.15
Reel width	W <sub>1</sub>	1.0	10.5

Note: Devices are packed in accordance with EIA standard RS-481-A and specifications listed above.

## Reel packing

PACKAGE	REEL SIZE	REEL (pcs)	COMPONENT SPACING (m/m)	BOX (pcs)	INNER BOX (m/m)	REEL DIA, (m/m)	CARTON SIZE (m/m)	CARTON (pcs)	APPROX. GROSS WEIGHT (kg)
SOD-323	7"	3,000	4.0	45,000	210*208*203	178	430*430*235	180,000	

## Suggested Pad Layout



Symbol	Unit (mm)	Unit (inch)
A	0.7	0.028
B	0.7	0.028
C	2.15	0.085
D	1.8	0.071
E	2.85	0.112