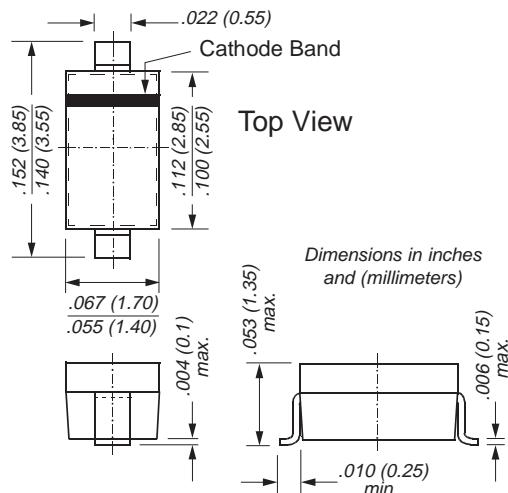
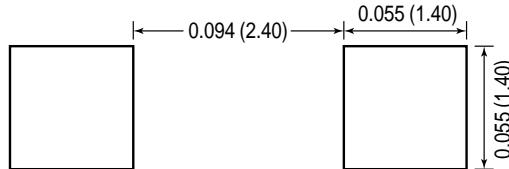



SOD-123

Small Surface Mount Schottky Rectifier

 Reverse Voltage 40V
 Forward Current 0.5A


Mounting Pad Layout



Mechanical Data

Case: SOD-123 plastic case

Polarity: Band denotes cathode end

Weight: 0.01g

Marking Code: B4

Packaging Codes/Options:

 D3/10K per 13" reel (8mm tape), 30k/box
 D4/3K per 7" reel (8mm tape), 30k/box

Features

- For surface mounted applications
- Low profile package
- Ideal for automated placement
- Low power loss, high efficiency
- High temperature soldering:
250°C/10 seconds at terminals

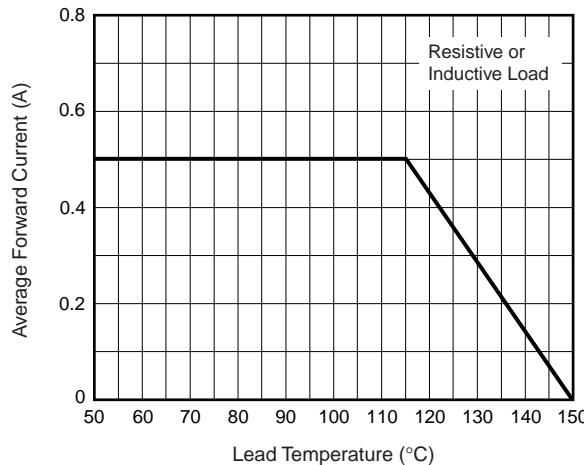
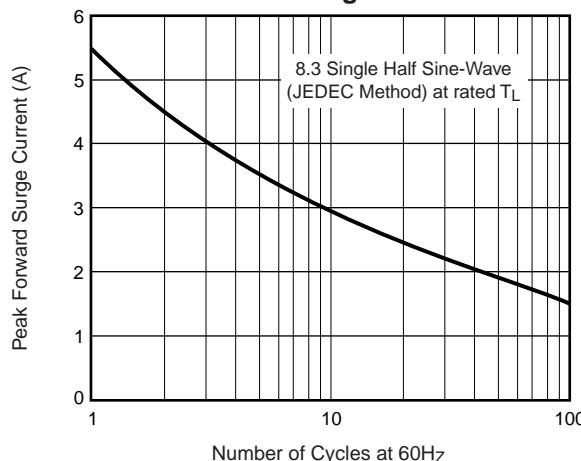
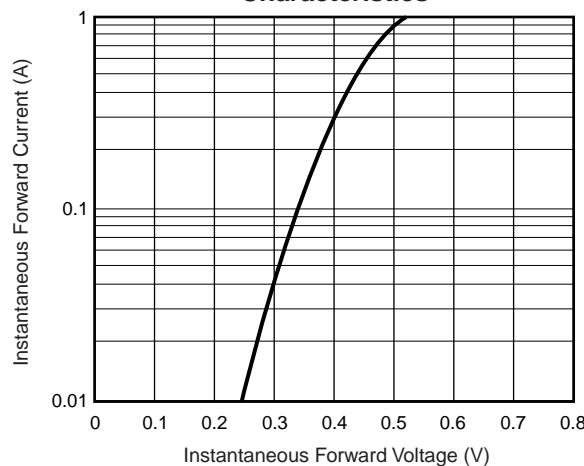
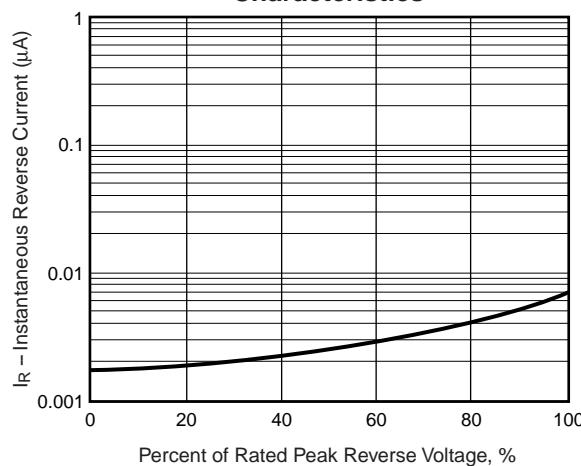
Maximum Ratings and Thermal Characteristics (TA = 25°C unless otherwise noted)

Parameter	Symbol	Value	Unit
Maximum repetitive peak reverse voltage	VR _{RRM}	40	V
Working peak reverse voltage	VR _{RWM}	40	V
Maximum DC blocking voltage	VR	40	V
Max. average forward rectified current at rated VR, T _C = 115°C	I _{F(AV)}	0.5	A
Peak repetitive forward current at rated VR, 20KHz square wave, T _C = 115°C	I _{FRM}	1.0	A
Peak forward surge current 8.3ms single half sine-wave T _L = 25°C	I _{FSM}	5.5	A
Voltage rate of change at rated VR, T _J = 25°C	dv/dt	1,000	V/μs
Typical thermal resistance junction to lead junction to ambient	R _{θJL} R _{θJA}	118 206	°C/W
Operating junction and storage temperature	T _J , T _{STG}	-55 to +150	°C

Electrical Characteristics (TA = 25°C unless otherwise noted)

Maximum instantaneous forward voltage	at I _F = 0.5A, T _J = 25°C at I _F = 0.5A, T _J = 100°C at I _F = 1.0A, T _J = 25°C at I _F = 1.0A, T _J = 100°C	V _F	0.51 0.46 0.62 0.61	V
Maximum DC reverse current	at VR = 40V, T _J = 25°C at VR = 40V, T _J = 100°C at VR = 20V, T _J = 25°C	I _R	20 5.0 10	μA mA μA

Note: (1) Pulse test: 300ms pulse width, 1% duty cycle.

**Ratings and
Characteristic Curves** ($T_A = 25^\circ\text{C}$ unless otherwise noted)**Fig. 1 – Derating Curve Output
Rectified Current****Fig. 2 – Maximum Non-Repetitive Peak
Forward Surge Current****Fig. 3 – Typical Instantaneous Forward
Characteristics****Fig. 4 – Typical Reverse
Characteristics****Fig. 5 – Typical Junction Capacitance**