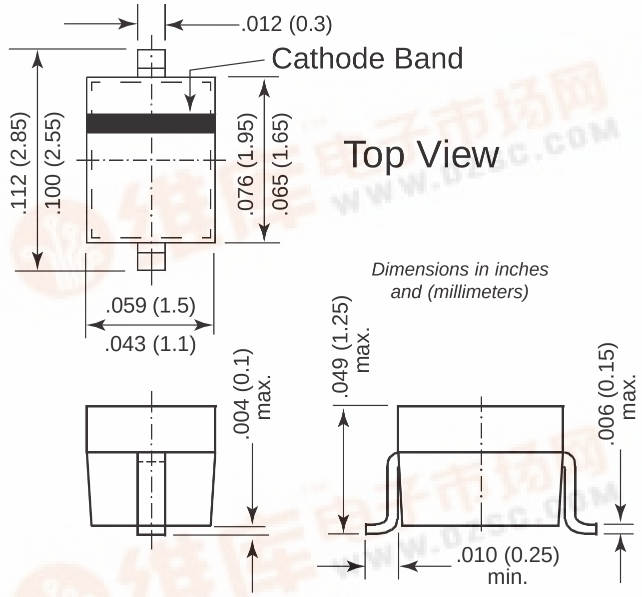
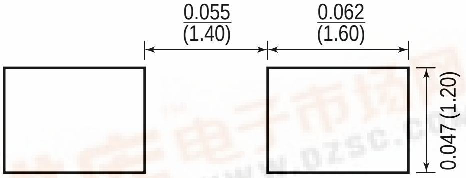
High-Voltage Small-Signal Switching Diode

SOD-323



Mounting Pad Layout



Mechanical Data

Case: SOD-323 Plastic Package
Weight: approx. 0.004g
Marking Code: B6
Packaging Codes/Options:
D5/10K per 13” reel (8mm tape), 30K/box
D6/3K per 7” reel (8mm tape), 30K/box

Features

- Silicon Epitaxial Planar Diode
- Fast switching diode,especially suited for applications requiring high voltage capability

Maximum Ratings and Thermal Characteristics

T_A = 25°C unless otherwise noted

Parameter	Symbol	Value	Unit
Continuous Reverse Voltage	V_R	240	V
Peak Repetitive Reverse Voltage	V_{RRM}	300	V
Peak Repetitive Reverse Current	I_{RRM}	200	mA
Forward Current (continuous)	I_F	225	mA
Peak Repetitive Forward Current	I_{FRM}	625	mA
Non-Repetitive Peak Forward Current at t_p = 1µs at t_p = 1s	I_{FSM}	4.0 1.0	A
Power Dissipation	P_{tot}	200(1)	mW
Typical Thermal Resistance Junction to Ambiant Air	$R_{\Theta JA}$	650(1)	°C/W
Junction Temperature	T_j	150	°C
Storage Temperature Range	T_S	–65 to +150	°C

Note: (1) Device on Fiberglass Substrate, see layout on second page

Electrical Characteristics

T_J = 25°C unless otherwise noted

Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
Reverse Breakdown Voltage	V_{BR}	I_R = 100µA	300	—	—	V
Leakage Current	I_R	V_R = 240V V_R = 240V, T_j = 150°C	— —	— —	100 100	nA µA
Forward Voltage	V_F	I_F = 20mA I_F = 100mA	— —	0.83 —	0.87 1.00	V
Capacitance	C_{tot}	$V_F = V_R = 0$ f = 1MHz	—	—	5.0	pF
Reverse Recovery Time	t_{rr}	$I_F = I_A$ = 30mA I_{rr} = 3.0mA, R_L = 100Ω	—	—	50	ns

Note:
(1)Device on fiberglass substrate, see layout