

Silicon Hyperabrupt Junction Varactor Diode

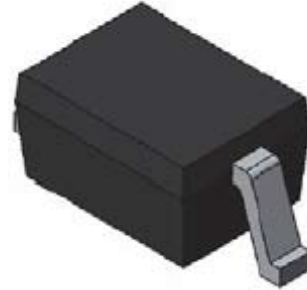
Rev. V1

Features

- Compact 1.27 x 1.7 x 0.09 mm SMT Package
- Uniform Capacitance / Temperature Coefficient
- Available on Tape and Reel

Description

The K3313 silicon hyperabrupt junction varactor diode is designed for use in voltage controlled oscillators (VCO's) with low tuning voltage operation.



Electrical Specifications: $T_A = +25^\circ\text{C}$ (unless otherwise specified)

Parameter	Test Conditions	Units	Min.	Typ.	Max.
Voltage Breakdown	$I_R = -10 \mu\text{A}$, DC	V	12.0	—	—
Forward Voltage	$I_F = 100 \text{ mA}$, DC	V	—	—	1.0
Total Capacitance	$V_R = -1.0 \text{ V}$, 1 MHz	pF	20.0	—	22.0
	$V_R = -2.5 \text{ V}$, 1 MHz		8.5		8.5
	$V_R = -4.0 \text{ V}$, 1 MHz		4.0		4.6

Absolute Maximum Ratings^{1,2}

Parameter	Absolute Maximum
Breakdown Voltage	12 Min. @ $-10 \mu\text{A}$
Moisture Sensitivity Level	1
Operating Temperature	-55°C to $+125^\circ\text{C}$
Storage Temperature	-65°C to $+200^\circ\text{C}$

1. Exceeding any one or combination of these limits may cause permanent damage to this device.
2. MACOM does not recommend sustained operation near these survivability limits.

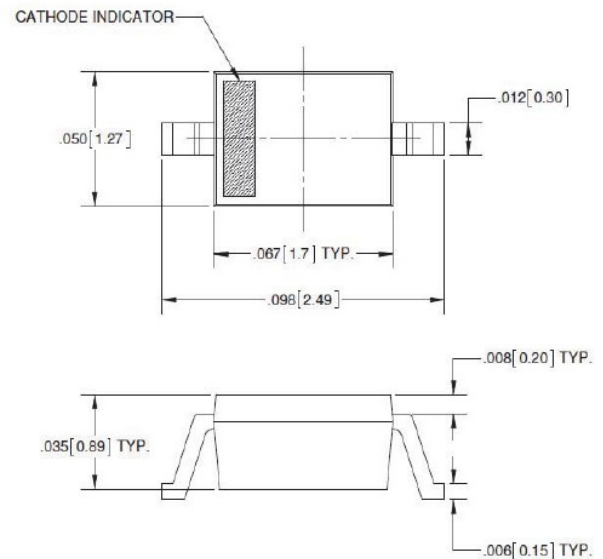
Handling Procedures

Please observe the following precautions to avoid damage:

Static Sensitivity

These electronic devices are sensitive to electrostatic discharge (ESD) and can be damaged by static electricity. Proper ESD control techniques should be used when handling these Class 0 (HBM) devices.

Outline Drawing, SOD-323



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