Schottky Barrier Diode

Dual Series Schottky Barrier Diode for Mixer and Detector 5 V, 30 mA, 0.69 pF CP

1SS351



SC−59
CASE 318BJ

Features

- Series Connection of 2 Elements in a Small−Sized Package Facilitates High−Density Mounting and Permits 1SS351−Applied Equipment to be Made Smaller
- Small Interterminal Capacitance (C = 0.69 pF typ)
- Small Forward Voltage (V_F = 0.23 V max)
- This is a Pb−Free Device

ABSOLUTE MAXIMUM RATINGS (Ta = 25°C)

Symbol	Parameter	Conditions	Ratings	Unit
V_{RM}	Peak Reverse Voltage		5	V
I_F	Forward Current		30	mA
Tj	Junction Temperature		125	°C
Tstg	Storage Temperature		−55 to +125	°C

Stresses exceeding those listed in the Maximum Ratings table may damage the device. If any of these limits are exceeded, device functionality should not be assumed, damage may occur and reliability may be affected.

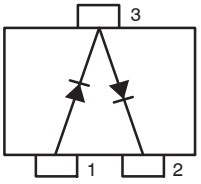
ELECTRICAL CHARACTERISTICS (Ta = 25°C)

Symbol	Parameter	Conditions	Ratings			Unit
			Min	Typ	Max	
V_F	Forward Voltage	I_F = 1 mA	−	−	0.23	V
I_F	Forward Current	V_F = 0.5 V	30	−	−	mA
I_R	Reverse Current	V_R = 0.5 V	−	−	25	μA
C	Interterminal Capacitance	V_R = 0.2 V, f = 1 MHz	−	0.69	0.9	pF

Product parametric performance is indicated in the Electrical Characteristics for the listed test conditions, unless otherwise noted. Product performance may not be indicated by the Electrical Characteristics if operated under different conditions.

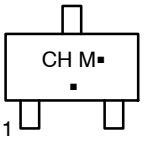
1. The specifications shown above are for each individuals diode.

ELECTRICAL CONNECTION



1. Anode
2. Cathode
3. Anode/Cathode

MARKING DIAGRAM



CH = Specific Device Code
M = Date Code
▪ = Pb−Free Package

(Note: Microdot may be in either location)

ORDERING INFORMATION

Device	Package	Shipping†
1SS351−TB−E	SC−59−3 (Pb−Free)	3 000 / Tape & Reel

†For information on tape and reel specifications, including part orientation and tape sizes, please refer to our Tape and Reel Packaging Specification Brochure, BRD8011/D.

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TYPICAL CHARACTERISTICS

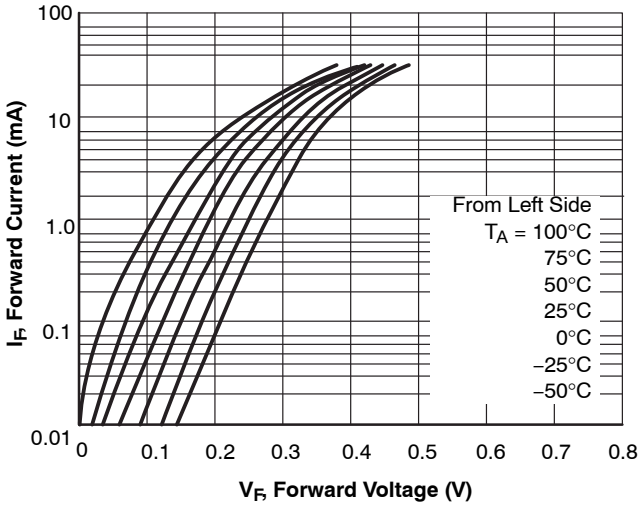

Figure 1. $I_F - V_F$

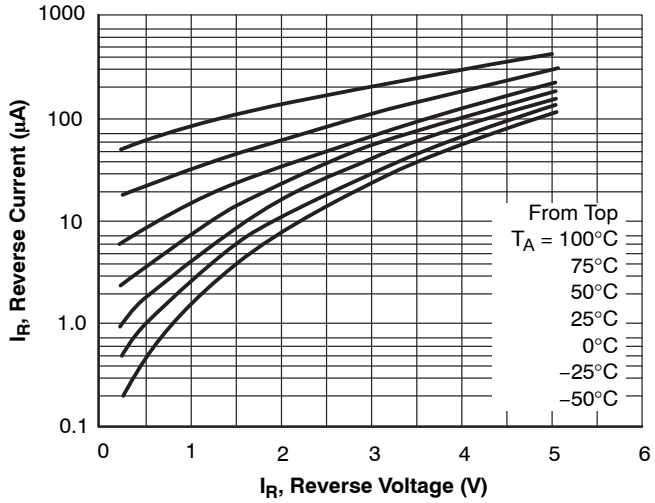

Figure 2. $I_R - V_R$

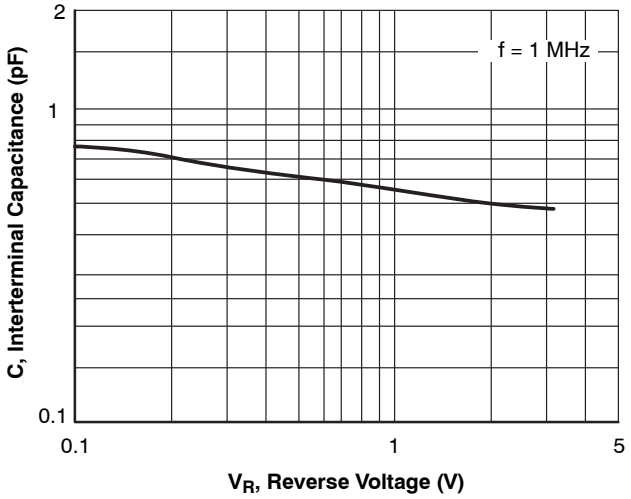

Figure 3. $C - V_R$



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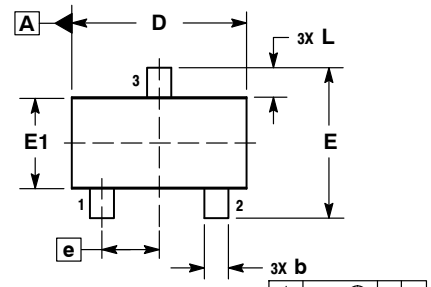
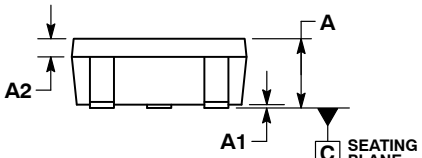
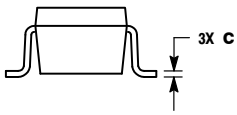


TOP VIEW



SIDE VIEW

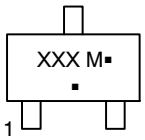


END VIEW

NOTES:
1. DIMENSIONING AND TOLERANCING PER ASME Y14.5M, 1994.
2. CONTROLLING DIMENSION: MILLIMETERS.
3. DIMENSIONS D AND E1 DO NOT INCLUDE MOLD FLASH, PROTRUSIONS, OR GATE BURRS. MOLD FLASH, PROTRUSIONS, OR GATE BURRS SHALL NOT EXCEED 0.20 PER SIDE.
4. DIMENSIONS D AND E1 ARE MEASURED AT THE OUTERMOST EXTREME OF THE PLASTIC BODY.
5. DIMENSIONS b AND c APPLY TO THE FLAT SECTION OF THE LEAD BETWEEN 0.10 AND 0.20 FROM THE TIP.

	MILLIMETERS	
DIM	MIN	MAX
A	0.95	1.35
A1	0.00	0.10
A2	0.20	0.40
b	0.35	0.50
c	0.10	0.20
D	2.75	3.05
E	2.30	2.70
E1	1.35	1.65
e	0.95 BSC	
L	0.35	0.75

GENERIC MARKING DIAGRAM

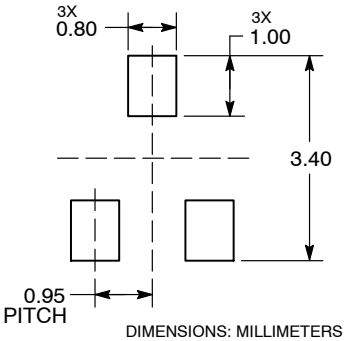


XXX = Specific Device Code
M = Date Code
▪ = Pb−Free Package

(Note: Microdot may be in either location)

*This information is generic. Please refer to device data sheet for actual part marking. Pb−Free indicator, “G” or microdot “ ▪”, may or may not be present.

RECOMMENDED SOLDERING FOOTPRINT*



DIMENSIONS: MILLIMETERS

*For additional information on our Pb−Free strategy and soldering details, please download the **onsemi** Soldering and Mounting Techniques Reference Manual, SOLDERRM/D.

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DESCRIPTION:	**SC−59 / CP3**		**PAGE 1 OF 1**

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