

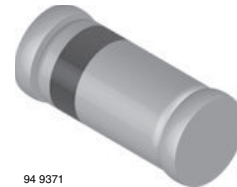
RF PIN Diodes - Single in MiniMELF SOD-80

Features

- Wide frequency range 10 MHz to 1 GHz
- AEC-Q101 qualified
- Compliant to RoHS directive 2002/95/EC and in accordance to WEEE 2002/96/EC



RoHS
COMPLIANT



94 9371

Applications

- Current controlled HF resistance in adjustable attenuators

Mechanical Data

Case: MiniMELF SOD-80

Weight: approx. 31 mg

Cathode band color: Black

Packaging codes/options:

GS18/10 k per 13" reel (8 mm tape), 10 k/box

GS08/2.5 k per 7" reel (8 mm tape), 12.5 k/box

Parts Table

Part	Type differentiation	Ordering code	Type Marking	Remarks
BA679	$Z_R > 5 \text{ k}\Omega$	BA679-GS18 or BA679-GS08	-	Tape and Reel
BA679S	$Z_R > 9 \text{ k}\Omega$	BA679S-GS18 or BA679S-GS08	-	Tape and Reel

Absolute Maximum Ratings

$T_{amb} = 25 \text{ }^\circ\text{C}$, unless otherwise specified

Parameter	Test condition	Symbol	Value	Unit
Reverse voltage		V_R	30	V
Forward continuous current		I_F	50	mA

Thermal Characteristics

$T_{amb} = 25 \text{ }^\circ\text{C}$, unless otherwise specified

Parameter	Test condition	Symbol	Value	Unit
Thermal resistance junction to ambient air	on PC board 50 mm x 50 mm x 1.6 mm	R_{thJA}	500	K/W
Junction temperature		T_j	125	$^\circ\text{C}$
Storage temperature range		T_{stg}	- 55 to + 150	$^\circ\text{C}$

Electrical Characteristics

$T_{amb} = 25\text{ }^{\circ}\text{C}$, unless otherwise specified

Parameter	Test condition	Part	Symbol	Min	Typ.	Max	Unit
Forward voltage	$I_F = 20\text{ mA}$		V_F			1000	mV
Reverse current	$V_R = 30\text{ V}$		I_R			50	nA
Diode capacitance	$f = 100\text{ MHz}$, $V_R = 0$		C_D			0.5	pF
Differential forward resistance	$f = 100\text{ MHz}$, $I_F = 1.5\text{ mA}$		r_f			50	Ω
Reverse impedance	$f = 100\text{ MHz}$, $V_R = 0$	BA679	z_r	5			k Ω
		BA679S	z_r	9			k Ω
Minority carrier lifetime	$I_F = 10\text{ mA}$, $I_R = 10\text{ mA}$		τ		4		μs

Typical Characteristics

$T_{amb} = 25\text{ }^{\circ}\text{C}$, unless otherwise specified

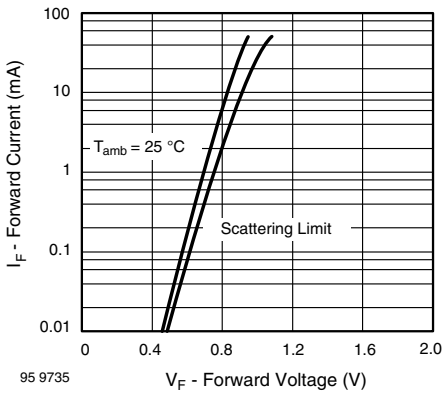


Figure 1. Forward Current vs. Forward Voltage

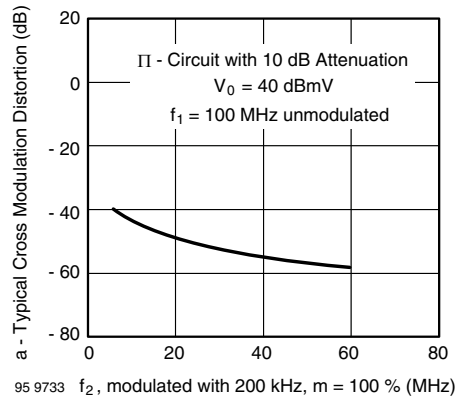


Figure 3. Typ. Cross Modulation Distortion vs. Frequency f_2

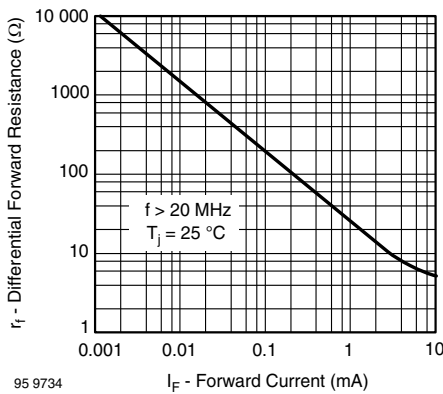
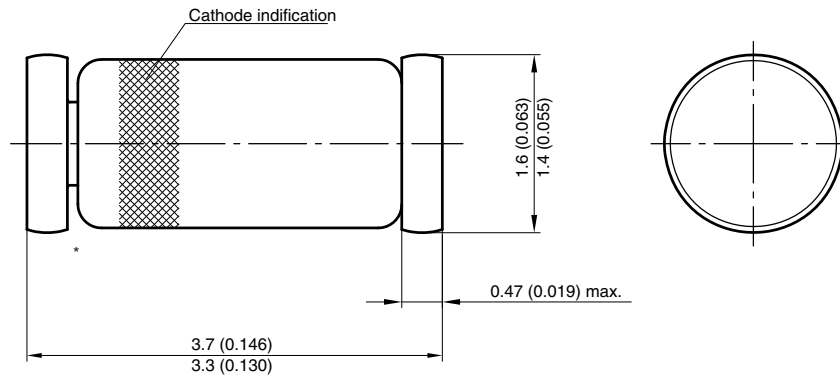
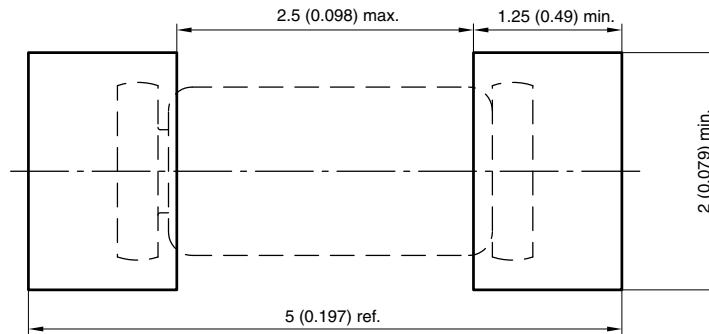


Figure 2. Differential Forward Resistance vs. Forward Current

Package Dimensions in millimeters (inches): MiniMELF SOD-80

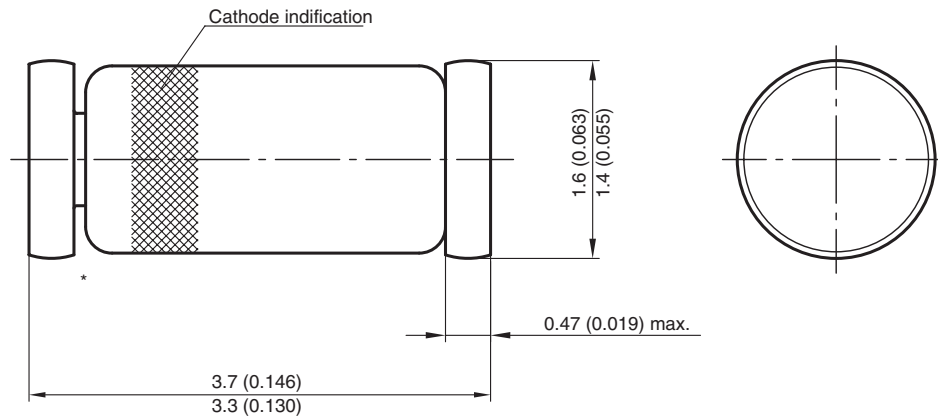


Foot print recommendation:



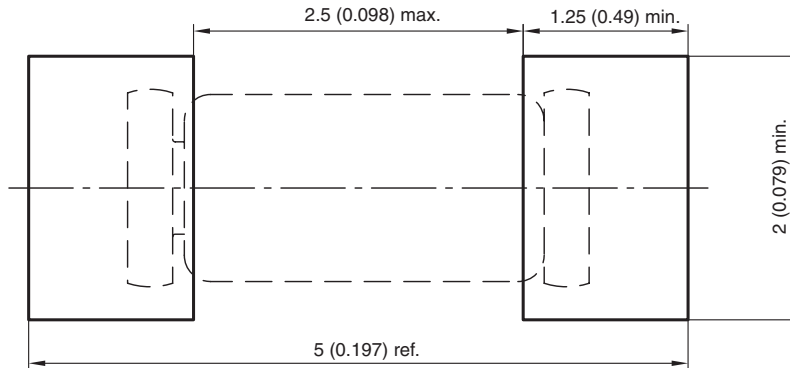
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PACKAGE DIMENSIONS in millimeters (inches)



* The gap between plug and glass can be either on cathode or anode side

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