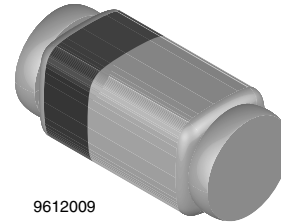
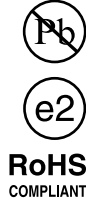


## RF PIN Diodes - Single in QuadroMELF SOD-80

### 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



9612009

### Applications

- Current controlled HF resistance in adjustable attenuators

### Mechanical Data

**Case:** QuadroMELF SOD-80

**Weight:** approx. 34 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
BA979	$Z_r > 5 \text{ k}\Omega$	BA979-GS18 or BA979-GS08	-	Tape and Reel
BA979S	$Z_r > 9 \text{ k}\Omega$	BA979S-GS18 or BA979S-GS08	-	Tape and Reel

### Absolute Maximum Ratings

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

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

### Thermal Characteristics

$T_{\text{amb}} = 25 \text{ }^\circ\text{C}$ , 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	$R_{\text{thJA}}$	500	K/W
Junction temperature		$T_j$	125	$^\circ\text{C}$
Storage temperature range		$T_{\text{stg}}$	- 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	$\Omega$
Reverse impedance	$f = 100\text{ MHz}, V_R = 0$	BA979	$z_r$	5			k $\Omega$
		BA979S	$z_r$	9			k $\Omega$
Minority carrier lifetime	$I_F = 10\text{ mA}, I_R = 10\text{ mA}$		$\tau$		4		$\mu\text{s}$

### Typical Characteristics

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

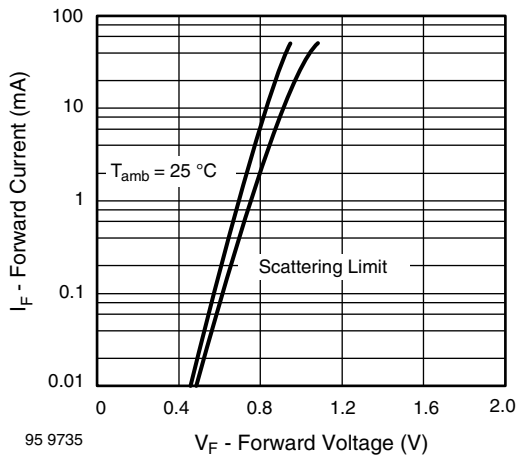


Figure 1. Forward Current vs. Forward Voltage

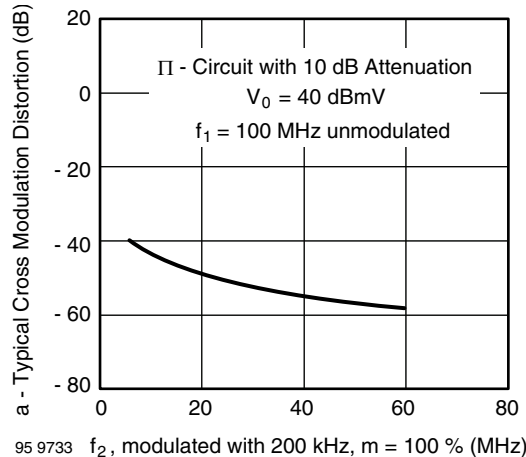


Figure 3. Typical Cross Modulation Distortion vs. Frequency  $f_2$

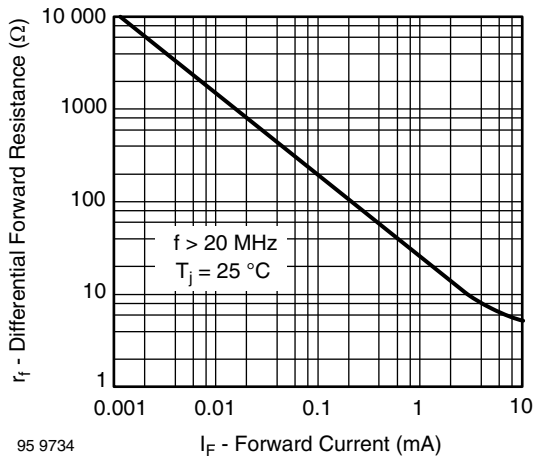
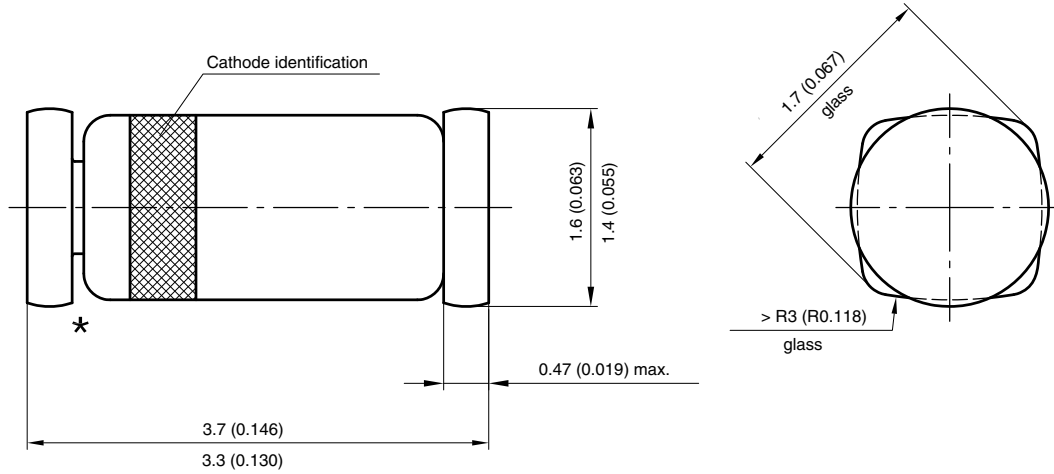
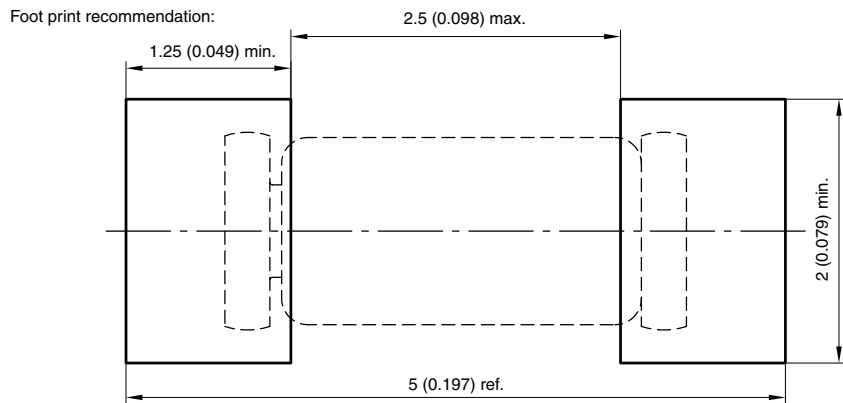


Figure 2. Differential Forward Resistance vs. Forward Current

## Package Dimensions in millimeters (inches): QuadroMELF SOD-80



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



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 96 12071



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