

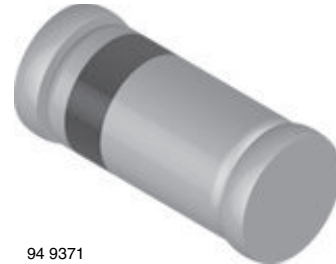
## RF PIN Diode - Single in MiniMELF SOD-80

### 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:**

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

### Parts Table

Part	Type differentiation	Ordering code	Remarks
S391D	$V_R = 30\text{ V}$	S391D-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
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	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	$f = 100\text{ MHz}, I_F = 1.5\text{ mA}$	$r_f$	40		60	$\Omega$
Reverse impedance	$f = 100\text{ MHz}, V_R = 0$	$z_r$	5			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

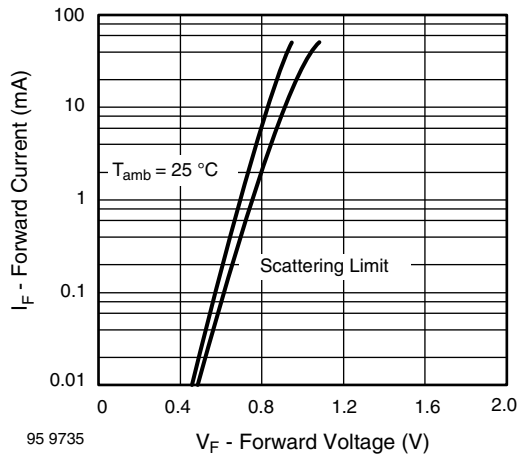
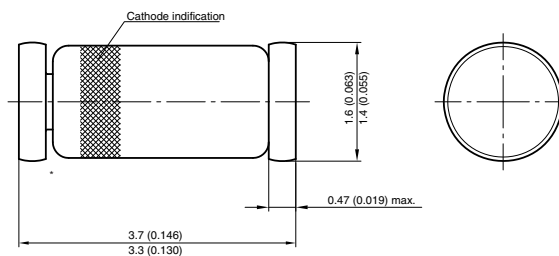
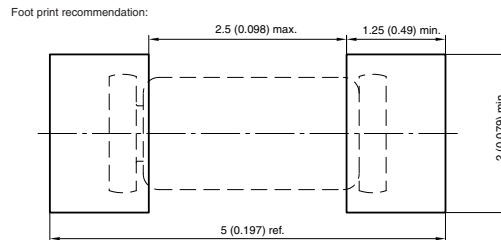


Figure 1. Forward Current vs. Forward Voltage

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



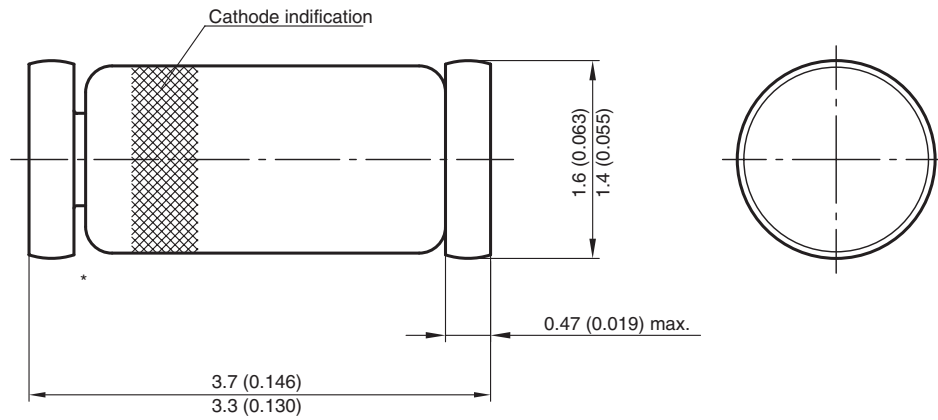
\* The gap between plug and glass can be either on cathode or anode side



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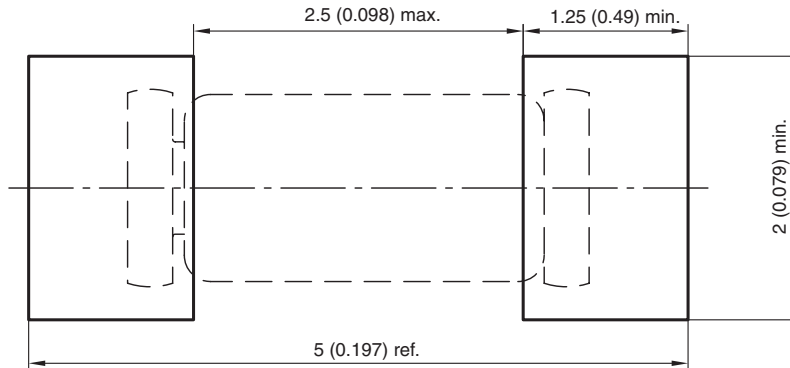


**PACKAGE DIMENSIONS** in millimeters (inches)



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

Foot print recommendation:



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