

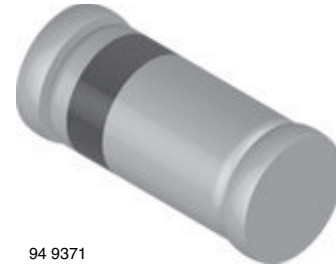
RF PIN Diode - Single in MiniMELF SOD-80

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	Ω
Reverse impedance	$f = 100\text{ MHz}, V_R = 0$	z_r	5			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

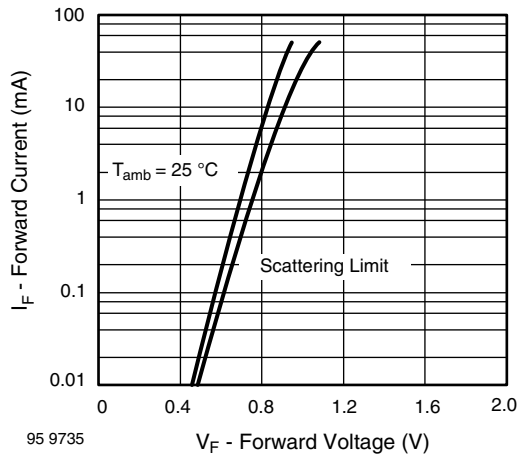
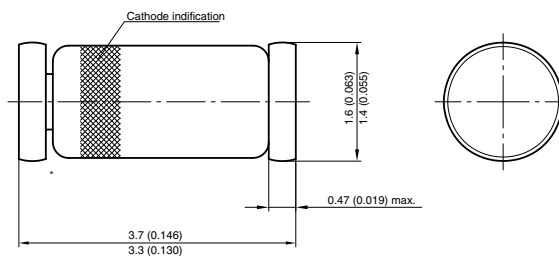
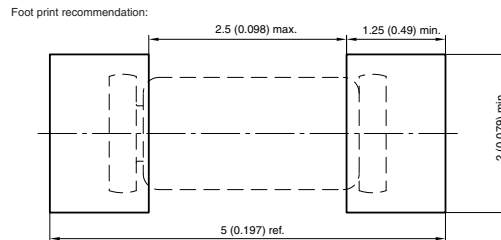


Figure 1. Forward Current vs. Forward Voltage

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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