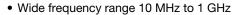


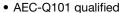
## Vishay Semiconductors

# **RF PIN Diodes - Single in MiniMELF SOD-80**



#### **FEATURES**











#### **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:

GS18/10K per 13" reel (8 mm tape), 10K/box GS08/2.5K per 7" reel (8 mm tape), 12.5K/box

PARTS TABLE						
PART	TYPE DIFFERENTIATION	ORDERING CODE	TYPE MARKING	INTERNAL CONSTRUCTION	REMARKS	
BA679	$z_r > 5 k\Omega$	BA679-GS18 or BA679-GS08	-	Single diode	Tape and reel	
BA679S	$z_r > 9 k\Omega$	BA679S-GS18 or BA679S-GS08	=	Single diode	Tape and reel	

ABSOLUTE MAXIMUM RATINGS (T <sub>amb</sub> = 25 °C, unless otherwise specified)						
PART	TEST CONDITION	SYMBOL	VALUE	UNIT		
Reverse voltage		$V_{R}$	30	V		
Forward continuous current		I <sub>F</sub>	50	mA		

THERMAL CHARACTERISTICS (T <sub>amb</sub> = 25 °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 <sub>thJA</sub>	500	K/W	
Junction temperature		Tj	125	°C	
Storage temperature range		T <sub>stg</sub>	- 55 to + 150	°C	

<b>ELECTRICAL CHARACTERISTICS</b> (T <sub>amb</sub> = 25 °C, unless otherwise specified)							
PARAMETER	TEST CONDITION	PART	SYMBOL	MIN.	TYP.	MAX.	UNIT
Forward voltage	$I_F = 20 \text{ mA}$		$V_{F}$			1	V
Reverse current	$V_R = 30 \text{ V}$		I <sub>R</sub>			0.05	μΑ
Diode capacitance	f = 100 MHz, V <sub>R</sub> = 0 V		C <sub>D</sub>			0.5	pF
Differential forward resistance	$f = 100 \text{ MHz}, I_F = 1.5 \text{ mA}$		r <sub>f</sub>			50	Ω
Reverse impedance	f = 100 MHz, V <sub>R</sub> = 0 V	BA679	z <sub>r</sub>	5			kΩ
neverse impedance		BA679S	z <sub>r</sub>	9			kΩ
Minority carrier lifetime	$I_F = 10 \text{ mA}, I_R = 10 \text{ mA}$		τ		4		μs

## Vishay Semiconductors

### TYPICAL CHARACTERISTICS (T<sub>amb</sub> = 25 °C, unless otherwise specified)

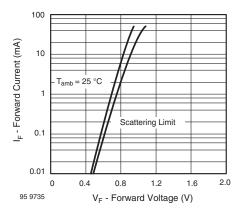


Fig. 1 - Forward Current vs. Forward Voltage

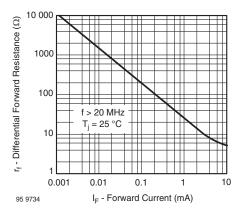


Fig. 2 - Differential Forward Resistance vs. Forward Current

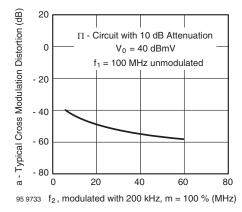
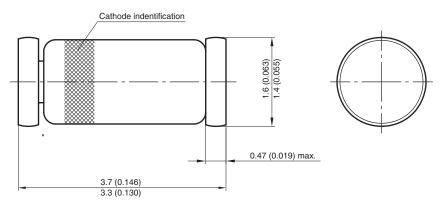


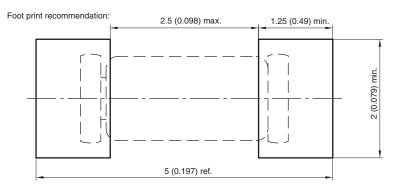
Fig. 3 - Typ. Cross Modulation Distortion vs. Frequency f<sub>2</sub>

# Vishay Semiconductors

### 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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