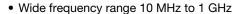


Vishay Semiconductors

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:

18/10K per 13" reel (8 mm tape), 10K/box 08/2.5K per 7" reel (8 mm tape), 12.5K/box

PARTS TABLE						
PART	TYPE DIFFERENTIATION	ORDERING CODE	TYPE MARKING	INTERNAL CONSTRUCTION	REMARKS	
BA679-M	$z_r > 5 k\Omega$	BA679-M-18 or BA679-M-08	-	Single diode	Tape and reel	
BA679S-M	$z_r > 9 \text{ k}\Omega$	BA679S-M-18 or BA679S-M-08	=	Single diode	Tape and reel	

ABSOLUTE MAXIMUM RATINGS (T _{amb} = 25 °C, unless otherwise specified)						
PART	TEST CONDITION	SYMBOL	VALUE	UNIT		
Reverse voltage		V_R	30	V		
Forward continuous current		I _F	50	mA		

THERMAL CHARACTERISTICS (T _{amb} = 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_{thJA}	500	K/W		
Junction temperature		Tj	125	°C		
Storage temperature range		T _{stg}	-55 to +150	°C		

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

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TYPICAL CHARACTERISTICS (T_{amb} = 25 °C, unless otherwise specified)

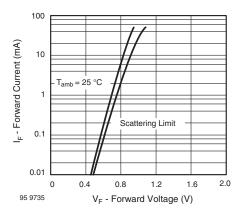


Fig. 1 - Forward Current vs. Forward Voltage

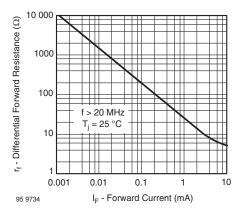


Fig. 2 - Differential Forward Resistance vs. Forward Current

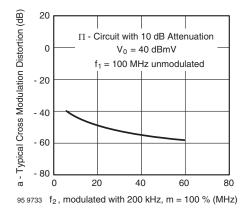
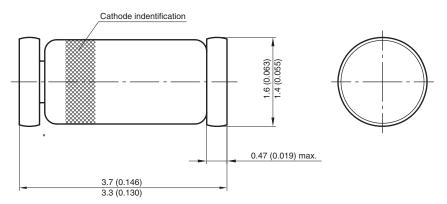


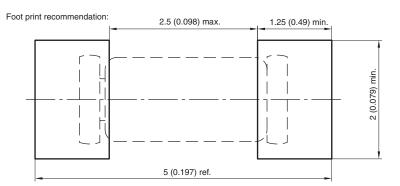
Fig. 3 - Typ. Cross Modulation Distortion vs. Frequency f₂

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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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