Vishay Semiconductors

RF PIN Diodes - Single in MiniMELF (SOD-80)

FEATURES

- Wide frequency range 10 MHz to 1 GHz
- Material categorization: for definitions of compliance please see <u>www.vishay.com/doc?99912</u>

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	CIRCUIT CONFIGURATION	REMARKS	
BA679-M	$z_r > 5 \ k\Omega$	BA679-M-18 or BA679-M-08	-	Single	Tape and reel	
BA679S-M	$z_r > 9 \ k\Omega$	BA679S-M-18 or BA679S-M-08	-	Single	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		١ _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	μA
Diode capacitance	f = 100 MHz, V _R = 0 V		CD			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	Zr	5			kΩ
neverse impedance		BA679S-M	Zr	9			kΩ
Minority carrier lifetime	I _F = 10 mA, I _R = 10 mA		τ		4		μs

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LINKS TO ADDITIONAL RESOURCES



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3D Models

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RoHS COMPLIANT HALOGEN FREE





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

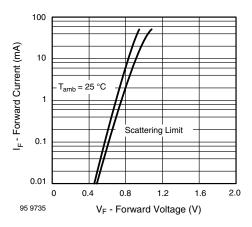


Fig. 1 - Forward Current vs. Forward Voltage

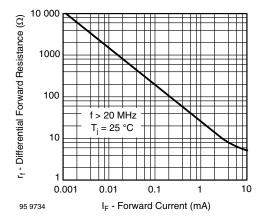


Fig. 2 - Differential Forward Resistance vs. Forward Current

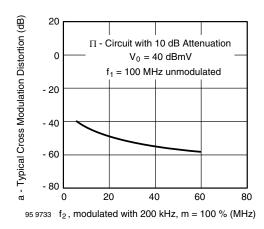


Fig. 3 - Typ. Cross Modulation Distortion vs. Frequency f₂

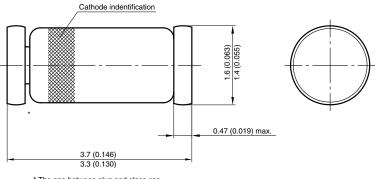
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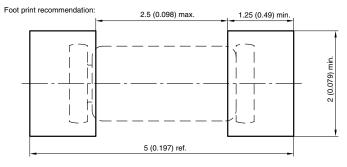


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PACKAGE DIMENSIONS in millimeters (inches): MiniMELF (SOD-80)



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



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