

BA479G, BA479S

Vishay Semiconductors

RF PIN Diodes - Single in DO-35

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
- Halogen-free according to IEC 61249-2-21
 compliant
 definition
 FREE





Applications

Current controlled HF resistance in adjustable attenuators

Mechanical Data

Case: DO-35 Weight: approx. 125 mg Cathode Band Color: black Packaging Codes/Options: TR/10 k per 13" reel (52 mm tape), 50 k/box TAP/10 k per Ammopack (52 mm tape), 50 k/box

Parts Table

Part	Type differentiation	Ordering code	Type Marking	Remarks
BA479G	V_{R} = 30 V, Z_{r} > 5 k Ω	BA479G-TR or BA479G-TAP	BA479G	Tape and Reel/Ammopack
BA479S	V_{R} = 30 V, Z_{r} > 9 k Ω	BA479S-TR or BA479S-TAP	BA479S	Tape and Reel/Ammopack

Absolute Maximum Ratings

T_{amb} = 25 °C, unless otherwise specified

Parameter	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	$I = 4 \text{ mm}, T_L = \text{constant}$	R _{thJA}	350	K/W	
Junction temperature		Tj	125	°C	
Storage temperature range		T _{stg}	- 55 to + 150	°C	

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Electrical Characteristics

T_{amb} = 25 °C, unless otherwise specified

Parameter	Test condition	Part	Symbol	Min.	Тур.	Max.	Unit
Forward voltage	I _F = 20 mA		V _F			1000	mV
Reverse current	V _R = 30 V		I _R			50	nA
Diode capacitance	f = 100 MHz, V _R = 0		CD			0.5	pF
Differential forward resistance	f = 100 MHz, I _F = 1.5 mA		r _f			50	Ω
Deveras impedance	f = 100 MHz, V _R = 0	BA479G	z _r	5			kΩ
Reverse impedance		BA479S	z _r	9			kΩ
Minority carrier lifetime	I _F = 10 mA, I _R = 10 mA		τ		4		μs

Typical Characteristics

 $T_{amb} = 25 \ ^{\circ}C$, unless otherwise specified

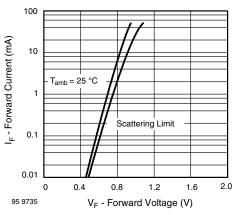


Figure 1. Forward Current vs. Forward Voltage

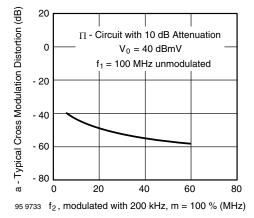


Figure 3. Typ. Cross Modulation Distortion vs. Frequency f₂

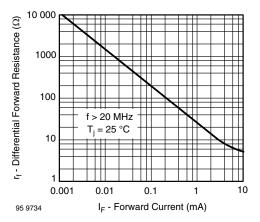


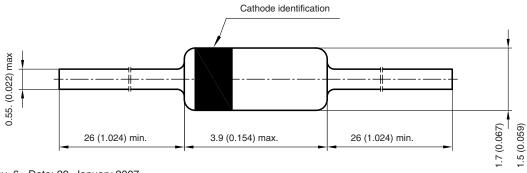
Figure 2. Differential Forward Resistance vs. Forward Current

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Package Dimensions in millimeters (inches): DO-35



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