

## RF PIN Diodes - Single in DO-35 (DO-204AH)



### FEATURES

- Wide frequency range 10 MHz to 1 GHz
- AEC-Q101 qualified
- Material categorization: for definitions of compliance please see [www.vishay.com/doc?99912](http://www.vishay.com/doc?99912)



**RoHS**  
COMPLIANT  
HALOGEN  
**FREE**

### APPLICATIONS

- Current controlled HF resistance in adjustable attenuators

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### MECHANICAL DATA

**Case:** DO-35 (DO-204AH)

**Weight:** approx. 125 mg

**Cathode band color:** black

**Packaging codes/options:**

TR/10K per 13" reel (52 mm tape), 50K/box

TAP/10K per ammpack (52 mm tape), 50K/box

### PARTS TABLE

PART	TYPE DIFFERENTIATION	ORDERING CODE	TYPE MARKING	CIRCUIT CONFIGURATION	REMARKS
BA479G	$V_R = 30\text{ V}$ , $z_r > 5\text{ k}\Omega$	BA479G-TR or BA479G-TAP	BA479G	Single	Tape and reel/ammpack
BA479S	$V_R = 30\text{ V}$ , $z_r > 9\text{ k}\Omega$	BA479S-TR or BA479S-TAP	BA479S	Single	Tape and reel/ammpack

### ABSOLUTE MAXIMUM RATINGS ( $T_{amb} = 25\text{ }^{\circ}\text{C}$ , unless otherwise specified)

PART	TEST CONDITION	SYMBOL	VALUE	UNIT
Reverse voltage		$V_R$	30	V
Forward continuous current		$I_F$	50	mA

### THERMAL CHARACTERISTICS ( $T_{amb} = 25\text{ }^{\circ}\text{C}$ , unless otherwise specified)

PARAMETER	TEST CONDITION	SYMBOL	VALUE	UNIT
Thermal resistance junction to ambient air	$l = 4\text{ mm}$ , $T_L = \text{constant}$	$R_{thJA}$	350	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	PART	SYMBOL	MIN.	TYP.	MAX.	UNIT
Forward voltage	$I_F = 20\text{ mA}$		$V_F$			1	V
Reverse current	$V_R = 30\text{ V}$		$I_R$			0.05	$\mu\text{A}$
Diode capacitance	$f = 100\text{ MHz}$ , $V_R = 0\text{ V}$		$C_D$			0.5	pF
Differential forward resistance	$f = 100\text{ MHz}$ , $I_F = 1.5\text{ mA}$		$r_f$			50	$\Omega$
Reverse impedance	$f = 100\text{ MHz}$ , $V_R = 0\text{ V}$	BA479G	$z_r$	5			$\text{k}\Omega$
		BA479S	$z_r$	9			$\text{k}\Omega$
Minority carrier lifetime	$I_F = 10\text{ mA}$ , $I_R = 10\text{ mA}$		$\tau$		4		$\mu\text{s}$

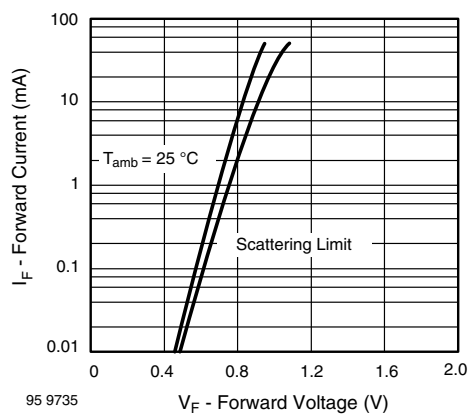
**TYPICAL CHARACTERISTICS** ( $T_{amb} = 25\text{ }^{\circ}\text{C}$ , unless otherwise specified)


Fig. 1 - Forward Current vs. Forward Voltage

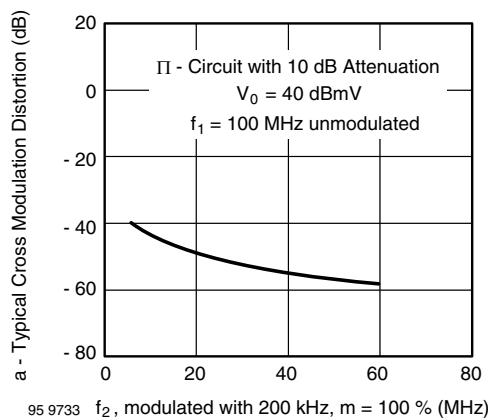
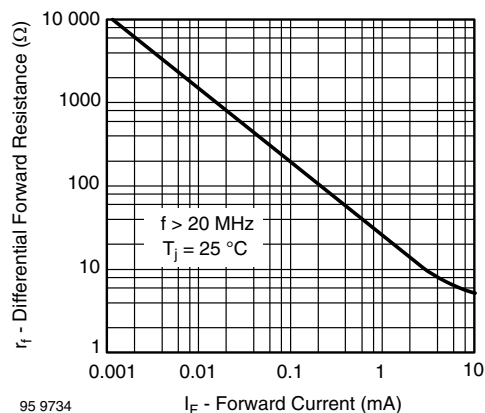
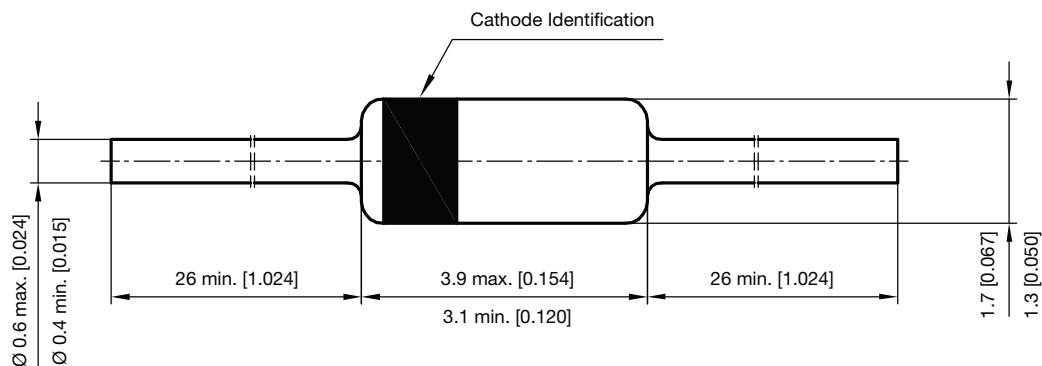

Fig. 3 - Typ. Cross Modulation Distortion vs. Frequency  $f_2$ 


Fig. 2 - Differential Forward Resistance vs. Forward Current

**PACKAGE DIMENSIONS** in millimeters (inches): **DO-35 (DO-204AH)**


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