

Vishay Semiconductors

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



DESIGN SUPPORT TOOLS click logo to get started

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



COMPLIANT

HALOGEN

FREE

APPLICATIONS

 Current controlled HF adjustable resistance attenuators



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 ammopack (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/ammopack	
BA479S	$V_R = 30 \text{ V}, z_r > 9 \text{ k}\Omega$	BA479S-TR or BA479S-TAP	BA479S	Single	Tape and reel/ammopack	

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		l _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 mm, T _L = constant	R _{thJA}	350	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	$I_F = 20 \text{ mA}$		V_{F}			1	V
Reverse current	$V_R = 30 \text{ V}$		I _R			0.05	μA
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	Ω
Reverse impedance	f = 100 MHz, V _R = 0 V	BA479G	Z _r	5			kΩ
neverse impedance		BA479S	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)

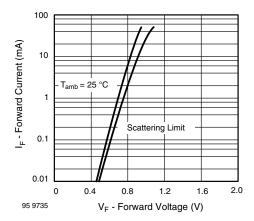


Fig. 1 - Forward Current vs. Forward Voltage

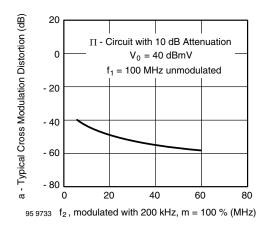


Fig. 3 - Typ. Cross Modulation Distortion vs. Frequency f₂

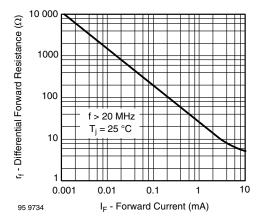
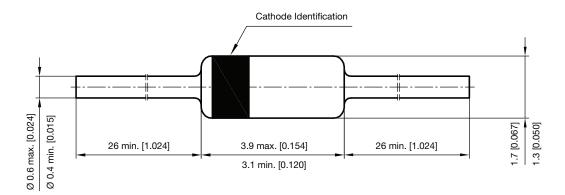


Fig. 2 - Differential Forward Resistance vs. Forward Current

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



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