

BA282, BA283

Vishay Semiconductors

Band Switching Diodes



MECHANICAL DATA

Case: DO-35

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

FEATURES

- Silicon planar diodes
- Low dynamic forward resistance
- Low diode capacitance
- High reverse impedance
- AEC-Q101 qualified
- Compliant to RoHS directive 2002/95/EC and in accordance to WEEE 2002/96/EC
- Halogen-free according to IEC 61249-2-21
 definition

APPLICATIONS

· Band switching in VHF-tuners

PARTS TABLE					
PART	TYPE DIFFERENTIATION	ORDERING CODE	TYPE MARKING	REMARKS	
BA282	r_f at I _F 3 mA = max. 0.7 Ω	BA282-TR or BA282-TAP	BA282	Tape and reel/ammopack	
BA283	r_f at I _F 3 mA = max. 1.2 Ω	BA283-TR or BA283-TAP	BA283	Tape and reel/ammopack	

ABSOLUTE MAXIMUM RATINGS ⁽¹⁾					
PARAMETER	TEST CONDITIONS	SYMBOL	VALUE	UNIT	
Reverse voltage		V _R	35	V	
Forward continuous current		I _F	100	mA	

Note

⁽¹⁾ $T_{amb} = 25 \ ^{\circ}C$, unless otherwise specified

THERMAL CHARACTERISTICS ⁽¹⁾					
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	150	°C	
Storage temperature range		T _{stg}	- 55 to + 150	°C	

Note

⁽¹⁾ $T_{amb} = 25 \ ^{\circ}C$, unless otherwise specified

ROHS COMPLIANT

HALOGEN

FREE

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ELECTRICAL CHARACTERISTICS ⁽¹⁾							
PARAMETER	TEST CONDITION	PART	SYMBOL	MIN.	TYP.	MAX.	UNIT
Forward voltage	I _F = 100 mA		V _F			1000	mV
Reverse current	V _R = 20 V		I _R			50	nA
Diode capacitance	f = 100 MHz, V _R = 1 V		CD			1.5	pF
	f = 100 MHz, V _R = 3 V	BA282	CD			1.25	pF
		BA283	CD			1.2	pF
Dynamic forward resistance	f = 200 MHz, I _F = 3 mA	BA282	r _f			0.7	Ω
		BA283	r _f			1.2	Ω
	f = 200 MHz, I _F = 10 mA	BA282	r _f			0.5	Ω
		BA283	r _f			0.9	Ω
Reverse impedance	f = 100 MHz, V _R = 1 V		ZR	100			kΩ

Note

 $^{(1)}$ T_{amb} = 25 °C, unless otherwise specified

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

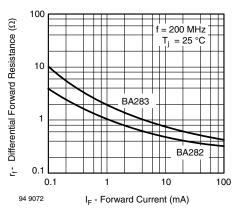


Fig. 1 - Dynamic Forward Resistance vs. Forward Current

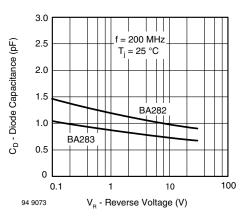
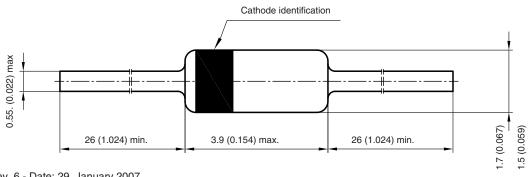


Fig. 2 - Diode Capacitance vs. Reverse Voltage

PACKAGE DIMENSIONS in millimeters (inches): DO-35



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