

Band Switching Diodes



94 9367

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 ammpack (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


RoHS
 COMPLIANT
 HALOGEN
FREE

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

THERMAL CHARACTERISTICS (1)

PARAMETER	TEST CONDITION	SYMBOL	VALUE	UNIT
Thermal resistance junction to ambient air	$l = 4$ mm, $T_L = \text{constant}$	R_{thJA}	350	K/W
Junction temperature		T_j	150	°C
Storage temperature range		T_{stg}	- 55 to + 150	°C

Note

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

ELECTRICAL CHARACTERISTICS (1)							
PARAMETER	TEST CONDITION	PART	SYMBOL	MIN.	TYP.	MAX.	UNIT
Forward voltage	$I_F = 100 \text{ mA}$		V_F			1000	mV
Reverse current	$V_R = 20 \text{ V}$		I_R			50	nA
Diode capacitance	$f = 100 \text{ MHz}, V_R = 1 \text{ V}$		C_D			1.5	pF
	$f = 100 \text{ MHz}, V_R = 3 \text{ V}$	BA282	C_D			1.25	pF
Dynamic forward resistance	$f = 200 \text{ MHz}, I_F = 3 \text{ mA}$	BA282	r_f			0.7	Ω
		BA283	r_f			1.2	Ω
	$f = 200 \text{ MHz}, I_F = 10 \text{ mA}$	BA282	r_f			0.5	Ω
		BA283	r_f			0.9	Ω
Reverse impedance	$f = 100 \text{ MHz}, V_R = 1 \text{ V}$		Z_R	100			k Ω

Note

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

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

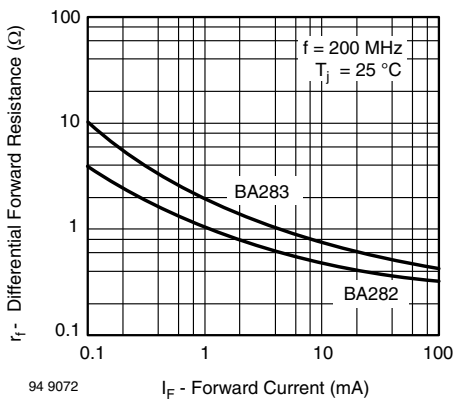


Fig. 1 - Dynamic Forward Resistance vs. Forward Current

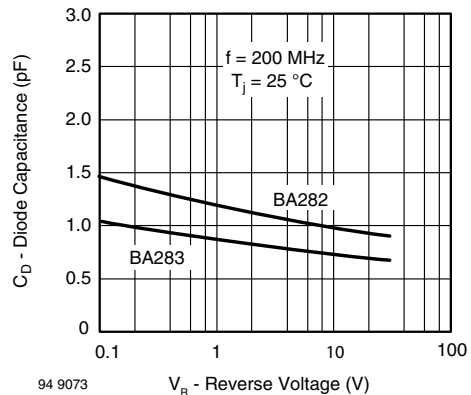
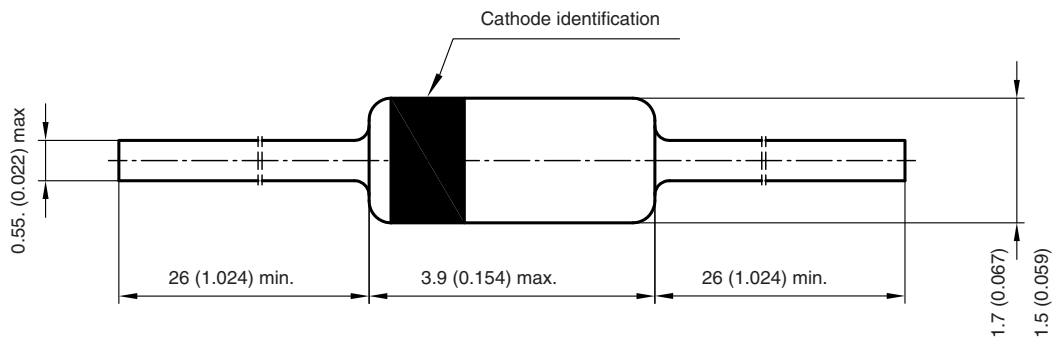


Fig. 2 - Diode Capacitance vs. Reverse Voltage

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



Rev. 6 - Date: 29. January 2007
 Document no.: 6.560-5004.02-4
 94 9366



Disclaimer

ALL PRODUCT, PRODUCT SPECIFICATIONS AND DATA ARE SUBJECT TO CHANGE WITHOUT NOTICE TO IMPROVE RELIABILITY, FUNCTION OR DESIGN OR OTHERWISE.

Vishay Intertechnology, Inc., its affiliates, agents, and employees, and all persons acting on its or their behalf (collectively, "Vishay"), disclaim any and all liability for any errors, inaccuracies or incompleteness contained in any datasheet or in any other disclosure relating to any product.

Vishay makes no warranty, representation or guarantee regarding the suitability of the products for any particular purpose or the continuing production of any product. To the maximum extent permitted by applicable law, Vishay disclaims (i) any and all liability arising out of the application or use of any product, (ii) any and all liability, including without limitation special, consequential or incidental damages, and (iii) any and all implied warranties, including warranties of fitness for particular purpose, non-infringement and merchantability.

Statements regarding the suitability of products for certain types of applications are based on Vishay's knowledge of typical requirements that are often placed on Vishay products in generic applications. Such statements are not binding statements about the suitability of products for a particular application. It is the customer's responsibility to validate that a particular product with the properties described in the product specification is suitable for use in a particular application. Parameters provided in datasheets and/or specifications may vary in different applications and performance may vary over time. All operating parameters, including typical parameters, must be validated for each customer application by the customer's technical experts. Product specifications do not expand or otherwise modify Vishay's terms and conditions of purchase, including but not limited to the warranty expressed therein.

Except as expressly indicated in writing, Vishay products are not designed for use in medical, life-saving, or life-sustaining applications or for any other application in which the failure of the Vishay product could result in personal injury or death. Customers using or selling Vishay products not expressly indicated for use in such applications do so at their own risk and agree to fully indemnify and hold Vishay and its distributors harmless from and against any and all claims, liabilities, expenses and damages arising or resulting in connection with such use or sale, including attorneys fees, even if such claim alleges that Vishay or its distributor was negligent regarding the design or manufacture of the part. Please contact authorized Vishay personnel to obtain written terms and conditions regarding products designed for such applications.

No license, express or implied, by estoppel or otherwise, to any intellectual property rights is granted by this document or by any conduct of Vishay. Product names and markings noted herein may be trademarks of their respective owners.