

## 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 $\Omega$	BA282-TR or BA282-TAP	BA282	Tape and reel/ammopack
BA283	$r_f$ at $I_F$ 3 mA = max. 1.2 $\Omega$	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	$\Omega$
		BA283	$r_f$			1.2	$\Omega$
	$f = 200 \text{ MHz}, I_F = 10 \text{ mA}$	BA282	$r_f$			0.5	$\Omega$
		BA283	$r_f$			0.9	$\Omega$
Reverse impedance	$f = 100 \text{ MHz}, V_R = 1 \text{ V}$		$Z_R$	100			k $\Omega$

**Note**

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

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

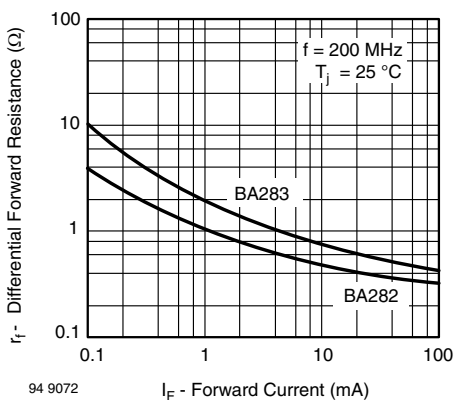


Fig. 1 - Dynamic Forward Resistance vs. Forward Current

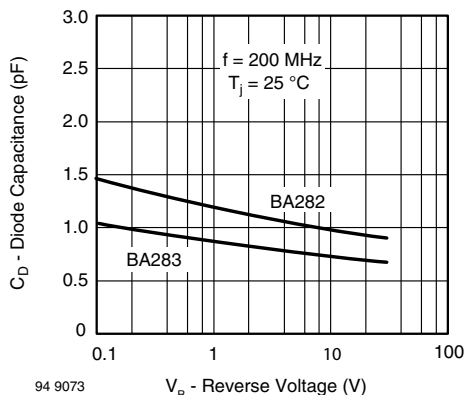
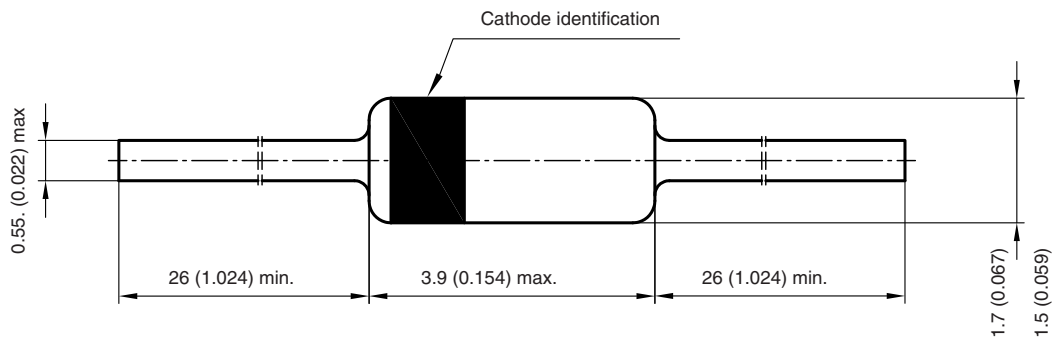


Fig. 2 - Diode Capacitance vs. Reverse Voltage

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



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



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