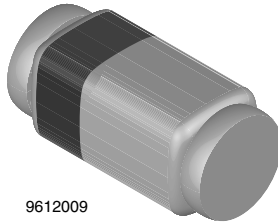


## Band Switching Diodes



9612009

### MECHANICAL DATA

**Case:** QuadroMELF SOD-80

**Weight:** approx. 34 mg

**Cathode band color:** black

**Packaging codes/options:**

GS18/10K per 13" reel (8 mm tape), 10K/box

GS08/2.5K per 7" reel (8 mm tape), 12.5K/box

### FEATURES

- Silicon planar diodes
- Low dynamic forward resistance
- Low diode capacitance
- High reverse impedance
- QuadroMELF package
- AEC-Q101 qualified
- Compliant to RoHS directive 2002/95/EC and in accordance to WEEE 2002/96/EC


**RoHS**  
COMPLIANT

### APPLICATIONS

- Band switching in VHF-tuners

### PARTS TABLE

PART	TYPE DIFFERENTIATION	ORDERING CODE	REMARKS
BA982	$V_R = 35 \text{ V}$ , $r_f$ at $I_F 3 \text{ mA} = \text{max. } 0.7 \Omega$	BA982-GS18 or BA982-GS08	Tape and reel
BA983	$V_R = 35 \text{ V}$ , $r_f$ at $I_F 3 \text{ mA} = \text{max. } 1.2 \Omega$	BA983-GS18 or BA983-GS08	Tape and reel

### ABSOLUTE MAXIMUM RATINGS <sup>(1)</sup>

PARAMETER	TEST CONDITIONS	SYMBOL	VALUE	UNIT
Reverse voltage		$V_R$	35	V
Forward continuous current		$I_F$	100	mA

**Note**
<sup>(1)</sup>  $T_{\text{amb}} = 25 \text{ }^\circ\text{C}$ , unless otherwise specified

### THERMAL CHARACTERISTICS <sup>(1)</sup>

PARAMETER	TEST CONDITION	SYMBOL	VALUE	UNIT
Junction to ambient air	On PC board 50 mm x 50 mm x 1.6 mm	$R_{\text{thJA}}$	500	K/W
Junction temperature		$T_j$	150	$^\circ\text{C}$
Storage temperature range		$T_{\text{stg}}$	- 55 to + 150	$^\circ\text{C}$

**Note**
<sup>(1)</sup>  $T_{\text{amb}} = 25 \text{ }^\circ\text{C}$ , unless otherwise specified

### ELECTRICAL CHARACTERISTICS <sup>(1)</sup>

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	$f = 100 \text{ MHz}$ , $V_R = 1 \text{ V}$		$C_{D1}$			1.5	pF
	$f = 100 \text{ MHz}$ , $V_R = 3 \text{ V}$	BA982	$C_{D2}$			1.25	pF
Dynamic forward resistance	$f = 200 \text{ MHz}$ , $I_F = 3 \text{ mA}$	BA982	$r_{f1}$			0.7	$\Omega$
		BA983	$r_{f1}$			1.2	$\Omega$
	$f = 200 \text{ MHz}$ , $I_F = 10 \text{ mA}$	BA982	$r_{f2}$			0.5	$\Omega$
		BA983	$r_{f2}$			0.9	$\Omega$

**Note**
<sup>(1)</sup>  $T_{\text{amb}} = 25 \text{ }^\circ\text{C}$ , unless otherwise specified

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

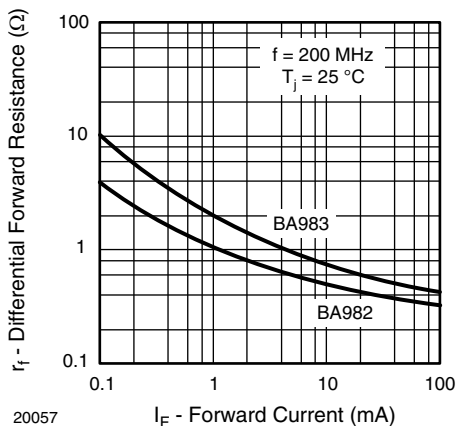


Fig. 1 - Dynamic Forward Resistance vs. Forward Current

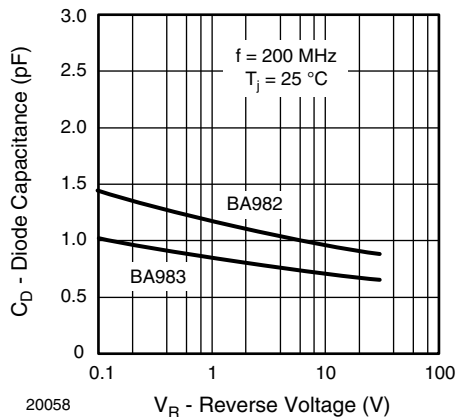
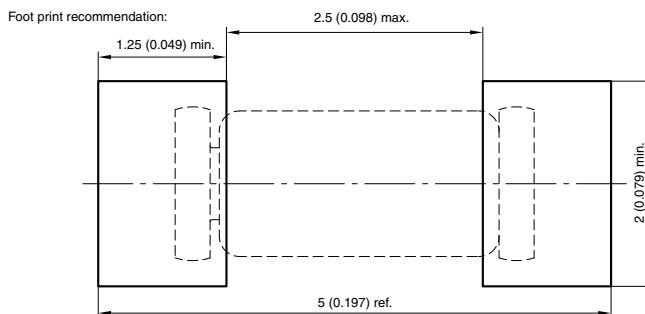
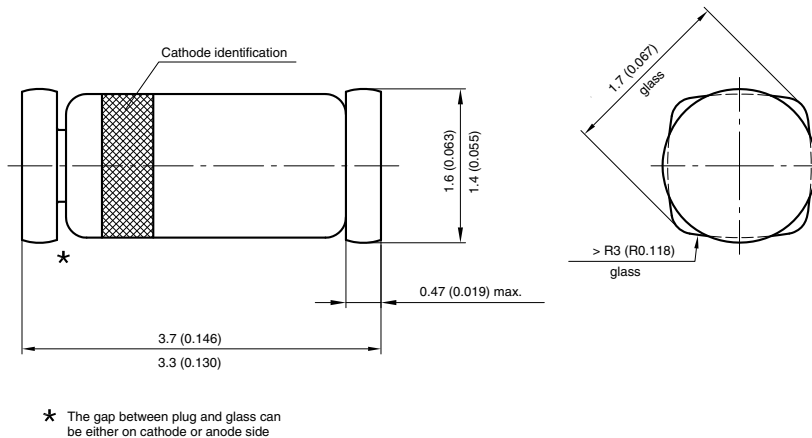


Fig. 2 - Diode Capacitance vs. Reverse Voltage

**PACKAGE DIMENSIONS** in millimeters (inches): **QuadroMELF SOD-80**



Created - Date: 03.November.2003  
 Rev. 11 - Date: 07.June.2006  
 Document no.:6.560-5006.01-4  
 96 12071



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