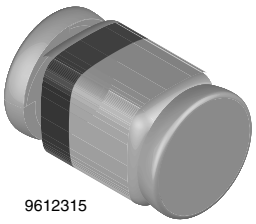
Band Switching Diodes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MECHANICAL DATA

Case: MicroMELF

Weight: approx. 12 mg

Cathode band color: black

Packaging codes/options:
TR3/10K per 13" reel (8 mm tape), 10K/box
TR/2.5K per 7" reel (8 mm tape), 12.5K/box

FEATURES

- Silicon planar diode
- Saving space
- Hermetic sealed parts
- Fits onto SOD-323 footprints
- Electrical data identical with the devices BA682, BA683, BA982, BA983
- 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	REMARKS
BA1282	V_R = 35 V, r_f at I_F 3 mA = max. 0.7 Ω	BA1282-TR3 or BA1282-TR	Tape and reel
BA1283	V_R = 35 V, r_f at I_F 3 mA = max. 1.2 Ω	BA1283-TR3 or BA1283-TR	Tape and reel

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
Junction to ambient air	Mounted on epoxy-glass hard tissue, fig. 1 35 µm copper clad, 0.9 mm^2 copper area per electrode	R_{thJA}	500	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 mA		V_F			1000	mV
Reverse current	V_R = 20 V		I_R			50	nA
Diode capacitance	f = 100 MHz, V_R = 1 V		C_{D1}			1.5	pF
	f = 100 MHz, V_R = 3 V	BA1282	C_{D2}			1.25	pF
		BA1283	C_{D2}			1.2	pF
Dynamic forward resistance	f = 200 MHz, I_F = 3 mA	BA1282	r_{f1}			0.7	Ω
		BA1283	r_{f1}			1.2	Ω
	f = 200 MHz, I_F = 10 mA	BA1282	r_{f2}			0.5	Ω
		BA1283	r_{f2}			0.9	Ω

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

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

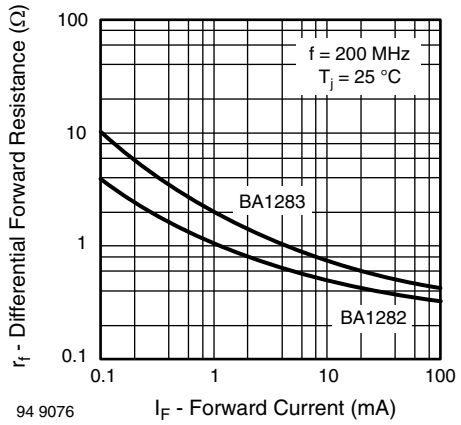


Fig. 1 - Dynamic Forward Resistance vs. Forward Current

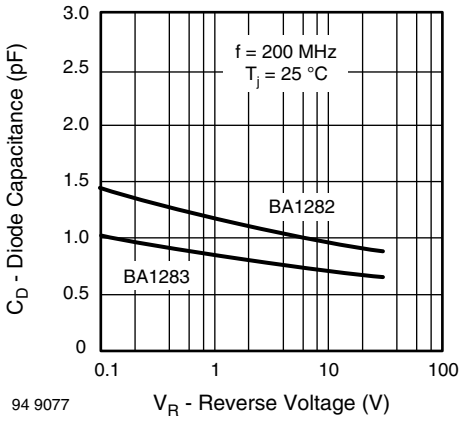


Fig. 2 - Diode Capacitance vs. Reverse Voltage

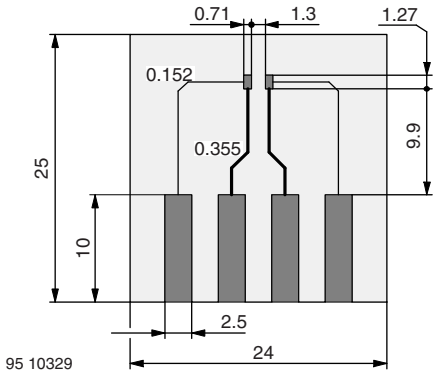
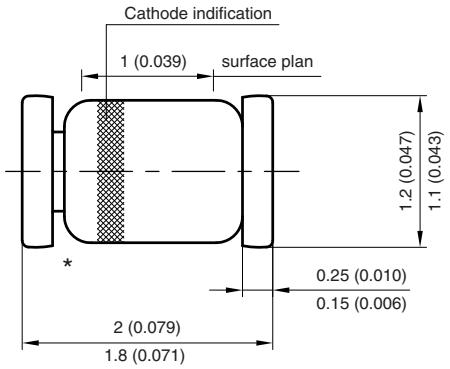
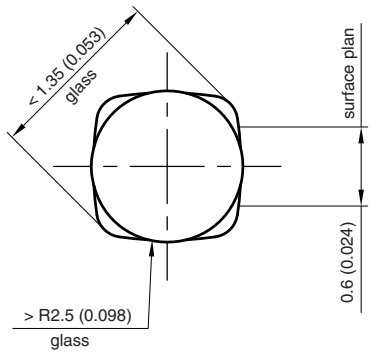


Fig. 3 - Board for R_{thJA} Definition (in mm)

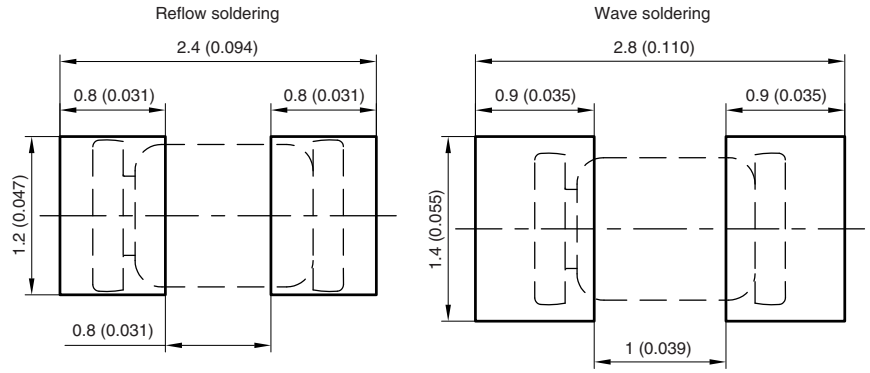
PACKAGE DIMENSIONS in millimeters (inches): **MicroMELF**





* The gap between plug and glass can be either on cathode or anode side

Foot print recommendation:



Created - Date: 26.July.1996
Rev. 13 - Date: 07.June.2006
Document no.:6.560-5007.01-4
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