HALOGEN

FREE



Vishay Semiconductors

Band Switching Diodes



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 ir accordance to WEEE 2002/96/EC
- Halogen-free according to IEC 61249-2-21 definition



· Band switching in VHF-tuners

PARTS TABLE				
PART	TYPE DIFFERENTIATION	ORDERING CODE	REMARKS	
BA1282	$V_R = 35 \text{ V}, r_f \text{ at } I_F \text{ 3 mA} = \text{max. } 0.7 \Omega$	BA1282-TR3 or BA1282-TR	Tape and reel	
BA1283	$V_R = 35 \text{ V}, r_f \text{ at } I_F \text{ 3 mA} = \text{max. } 1.2 \Omega$	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	TEST CONDITION SYMBOL		UNIT
Junction to ambient air	Mounted on epoxy-glass hard tissue, fig. 1 35 µm copper clad, 0.9 mm² copper area per electrode	R _{thJA}	500	K/W
Junction temperature		Tj	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

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

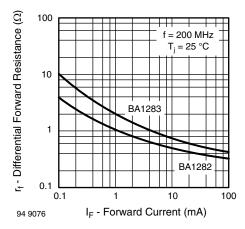


Fig. 1 - Dynamic Forward Resistance vs. Forward Current

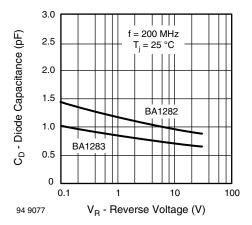


Fig. 2 - Diode Capacitance vs. Reverse Voltage

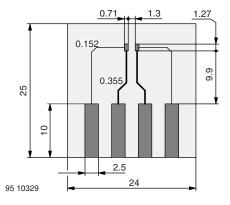


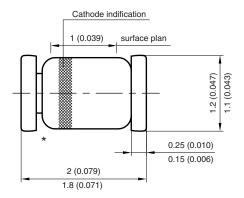
Fig. 3 - Board for R_{thJA} Definition (in mm)

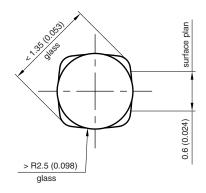


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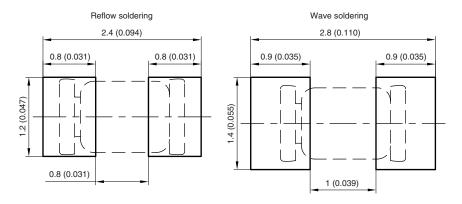
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PACKAGE DIMENSIONS in millimeters (inches): MicroMELF





Foot print recommendation:



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





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