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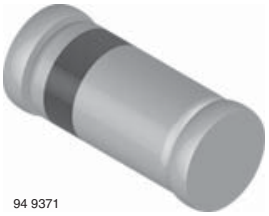
Band Switching Diodes



FEATURES

- Silicon planar diodes
- Low dynamic forward resistance
- Low diode capacitance
- High reverse impedance
- AEC-Q101 qualified
- Material categorization: For definitions of compliance please see www.vishay.com/doc?99912

RoHS COMPLIANT

APPLICATIONS

- Band switching in VHF-tuners

MECHANICAL DATA

Case: MiniMELF SOD-80

Weight: approx. 31 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

PARTS TABLE

PART	TYPE DIFFERENTIATION	ORDERING CODE	REMARKS
BA682	V_R = 35 V, r_f at I_F 3 mA = max. 0.7 Ω	BA682-GS18 or BA682-GS08	Tape and reel
BA683	V_R = 35 V, r_f at I_F 3 mA = max. 1.2 Ω	BA683-GS18 or BA683-GS08	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	On PC board 50 mm x 50 mm x 1.6 mm	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	BA682	C_{D2}			1.25	pF
		BA683	C_{D2}			1.2	pF
Dynamic forward resistance	f = 200 MHz, I_F = 3 mA	BA682	r_{f1}			0.7	Ω
		BA683	r_{f1}			1.2	Ω
	f = 200 MHz, I_F = 10 mA	BA682	r_{f2}			0.5	Ω
		BA683	r_{f2}			0.9	Ω

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

TYPICAL CHARACTERISTICS Tamb = 25 °C, unless otherwise specified

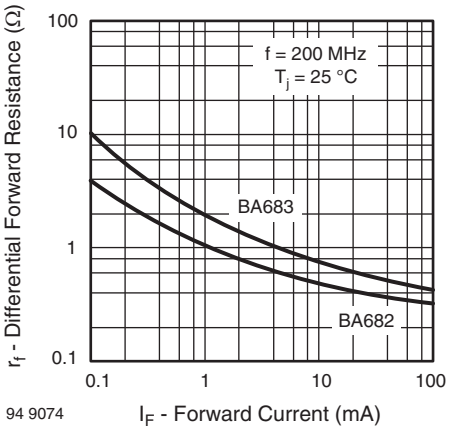


Fig. 1 - Dynamic Forward Resistance vs. Forward Current

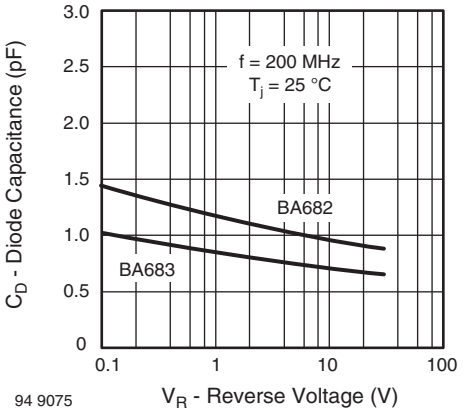
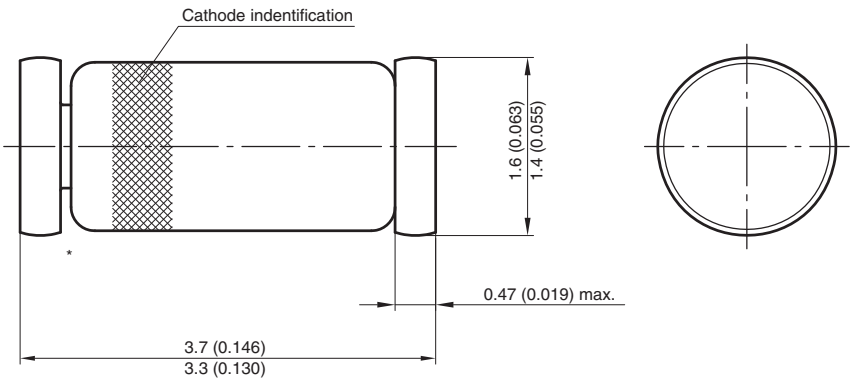
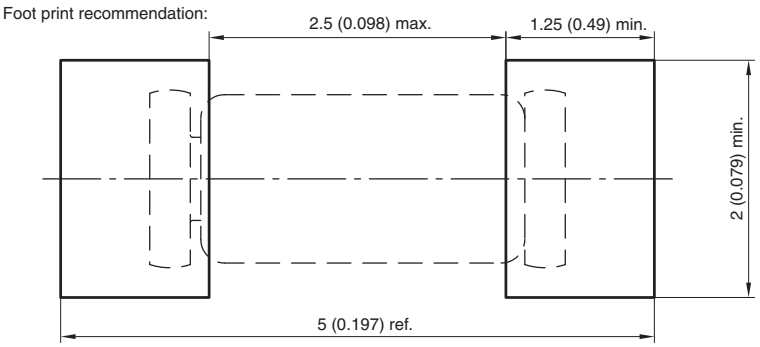


Fig. 1 - Diode Capacitance vs. Reverse Voltage

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



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



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