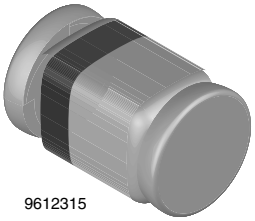
Small Signal Schottky Diode

Features

- Integrated protection ring against static discharge
- Very low forward voltage
- 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

- Applications where a very low forward voltage is required

Mechanical Data

Case: MicroMELF
Weight: approx. 12 mg
Cathode band color: black
Packaging codes/options:
TR3/10 k per 13" reel (8 mm tape), 10 k/box
TR/2.5 k per 7" reel (8 mm tape), 12.5 k/box

Parts Table

Part	Type differentiation	Ordering code	Remarks
BAS385	V_R = 30 V	BAS385-TR3 or BAS385-TR	Tape and Reel

Absolute Maximum Ratings

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

Parameter	Test condition	Symbol	Value	Unit
Reverse voltage		V_R	30	V
Peak forward surge current	t_p = 10 ms	I_{FSM}	5	A
Repetitive peak forward current	$t_p \leq 1$ s	I_{FRM}	300	mA
Forward continuous current		I_F	200	mA
Average forward current	V_{RWM} = 25 V	I_{FAV}	200	mA

Thermal Characteristics

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

Parameter	Test condition	Symbol	Value	Unit
Junction to ambient air	on PC board 50 mm x 50 mm x 1.6 mm	R_{thJA}	320	K/W
Junction temperature		T_j	125	°C
Storage temperature range		T_{stg}	- 65 to + 150	°C

Electrical Characteristics

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

Parameter	Test condition	Symbol	Min.	Typ.	Max.	Unit
Forward voltage	I_F = 0.1 mA	V_F			240	mV
	I_F = 1 mA	V_F			320	mV
	I_F = 10 mA	V_F			400	mV
	I_F = 30 mA	V_F			500	mV
	I_F = 100 mA	V_F			800	mV
Reverse current	V_R = 25 V, t_p = 300 µs	I_R			2.3	µA
Diode capacitance	V_R = 1 V, f = 1 MHz	C_D			10	pF

Typical Characteristics

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

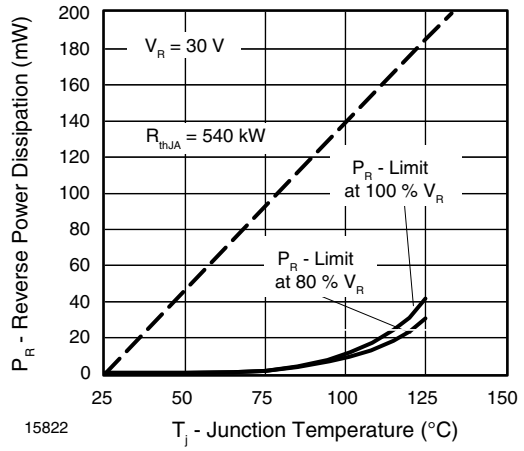


Figure 1. Max. Reverse Power Dissipation vs. Junction Temperature

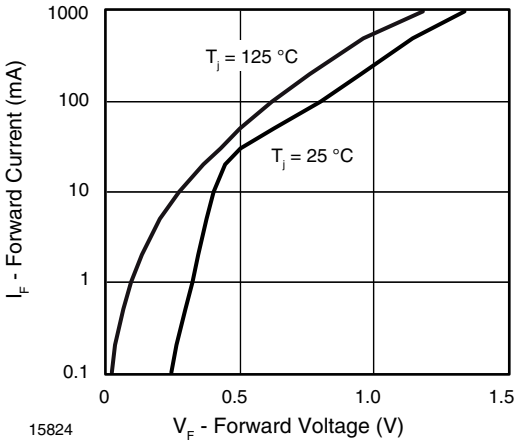


Figure 3. Forward Current vs. Forward Voltage

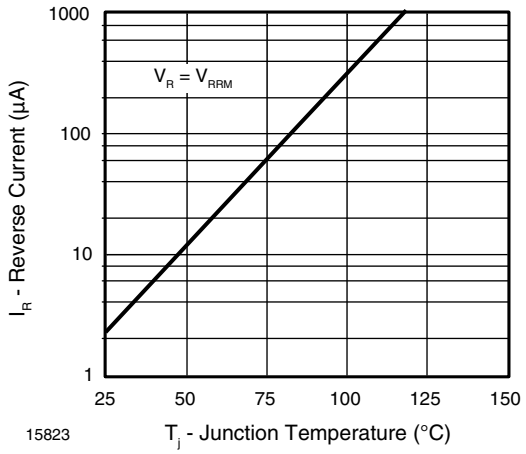


Figure 2. Reverse Current vs. Junction Temperature

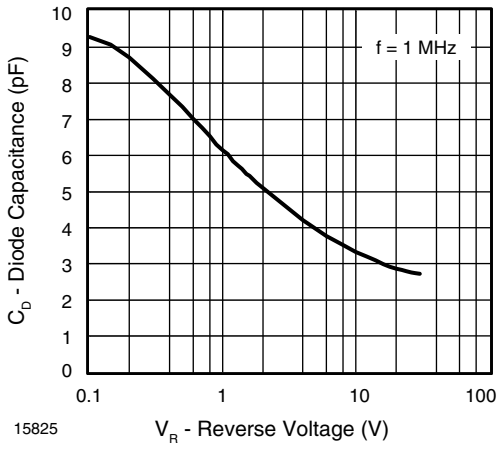


Figure 4. Diode Capacitance vs. Reverse Voltage

For technical questions within your region, please contact one of the following:
DiodesAmericas@vishay.com, DiodesAsia@vishay.com, DiodesEurope@vishay.com

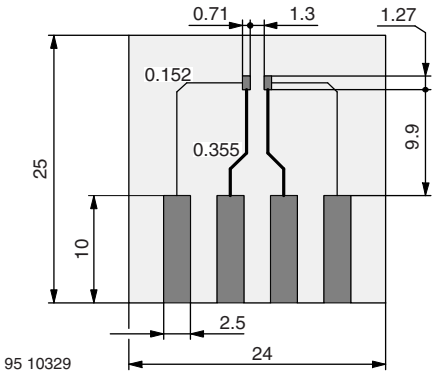
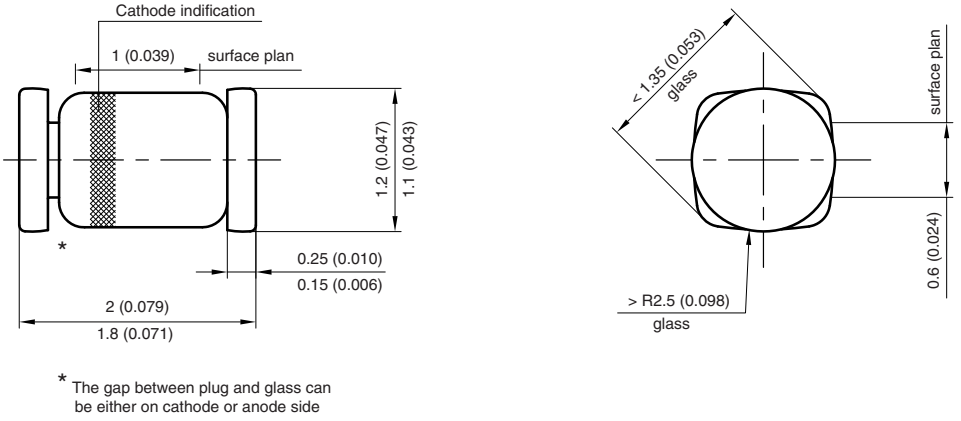


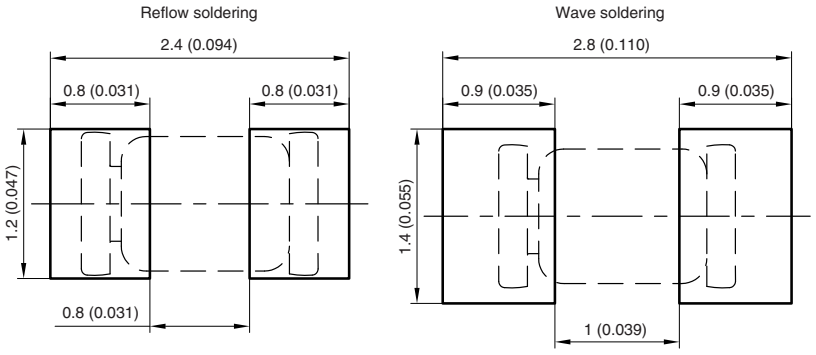
Figure 5. Board for R_{thJA} definition (in mm)

Package Dimensions in millimeters (inches): **MicroMELF**



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

Foot print recommendation:



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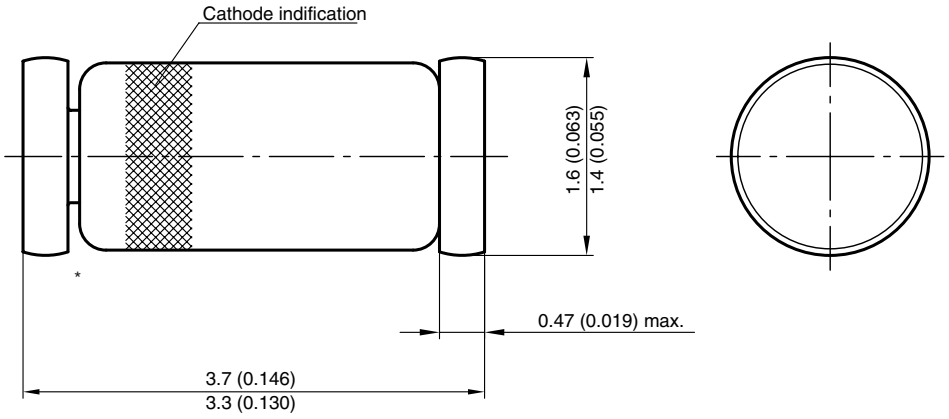
PACKAGE DIMENSIONS in millimeters (inches)



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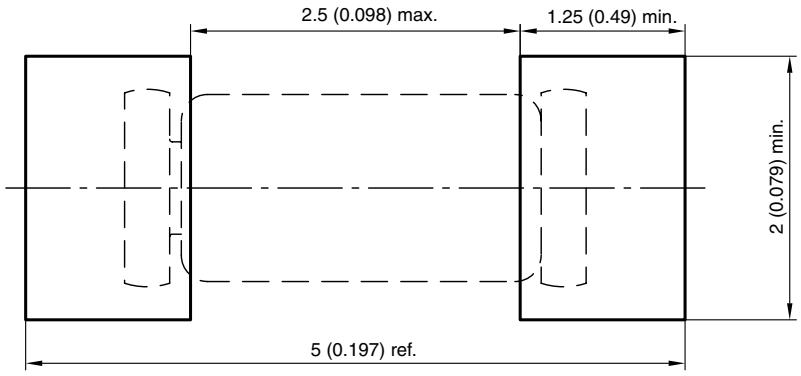

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