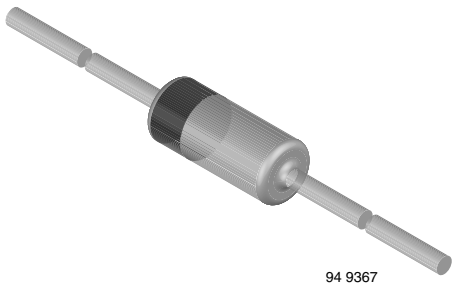
Small Signal Schottky Diode

Features

- For general purpose applications
- This diode features low turn-on voltage and high breakdown voltage. This device is protected by a PN junction guard ring against excessive voltage, such as electrostatic discharges
- This diode is also available in a MiniMELF case with type designation LL41
- 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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Mechanical Data

Case: DO-35

Weight: approx. 125 mg

Cathode Band Color: black

Packaging Codes/Options:

TR/10 k per 13" reel (52 mm tape), 50 k/box

TAP/10 k per Ammopack (52 mm tape), 50 k/box

Parts Table

Part	Ordering code	Type Marking	Remarks
BAT41	BAT41-TR or BAT41-TAP	BAT41	Tape and Reel/Ammopack

Absolute Maximum Ratings

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

Parameter	Test condition	Symbol	Value	Unit
Repetitive peak reverse voltage		V_{RRM}	100	V
Forward continuous current		I_F	100[1)]	mA
Repetitive peak forward current	t_p < 1 s, δ < 0.5	I_{FRM}	350[1)]	mA
Surge forward current	t_p = 10 ms	I_{FSM}	750[1)]	mA
Power dissipation	T_{amb} = 65 °C	P_{tot}	200[1)]	mW

[1)] Valid provided that electrodes are kept at ambient temperature

Thermal Characteristics

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

Parameter	Test condition	Symbol	Value	Unit
Thermal resistance junction to ambient air		R_{thJA}	300[1)]	K/W
Junction temperature		T_j	125	°C
Ambient operating temperature range		T_{amb}	- 65 to + 125	°C
Storage temperature range		T_{stg}	- 65 to + 150	°C

[1)] Valid provided that electrodes are kept at ambient temperature

Electrical Characteristics

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

Parameter	Test condition	Symbol	Min.	Typ.	Max.	Unit
Reverse breakdown voltage[2)]	I_R = 100 µA	$V_{(BR)}$	100	110		V
Leakage current[2)]	V_R = 50 V, T_j = 25 °C	I_R			100	nA
	V_R = 50 V, T_j = 100 °C	I_R			20	µA
Forward voltage[2)]	I_F = 1 mA	V_F		400	450	mV
	I_F = 200 mA	V_F			1000	mV
Diode capacitance	V_R = 1 V, f = 1 MHz	C_D		2		pF

[2)] Pulse test, t_p = 300 µs

Typical Characteristics

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

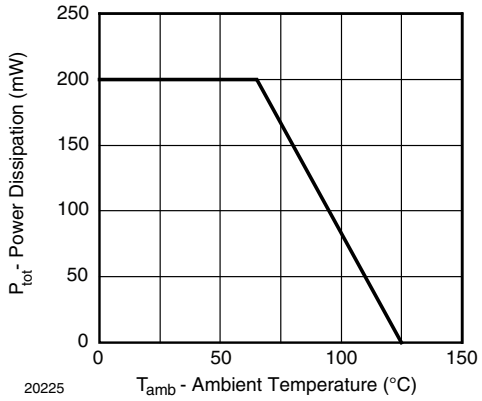

Figure 1. Admissible Power Dissipation vs. Ambient Temperature

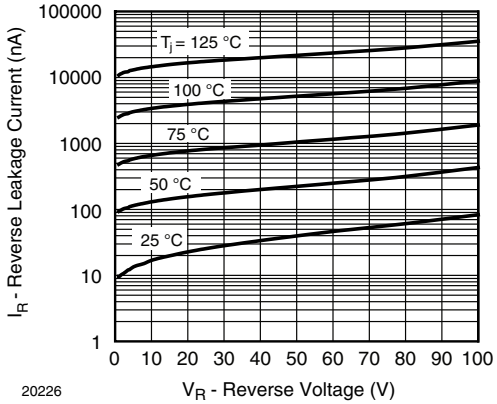

Figure 2. Typical Reverse Characteristics

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

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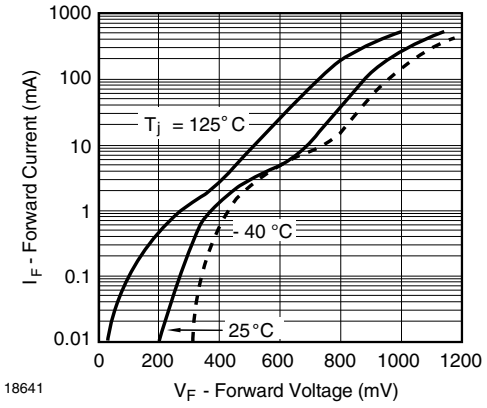


Figure 3. Typical Forward Characteristics

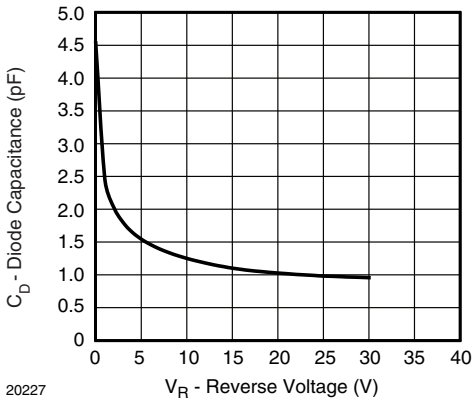
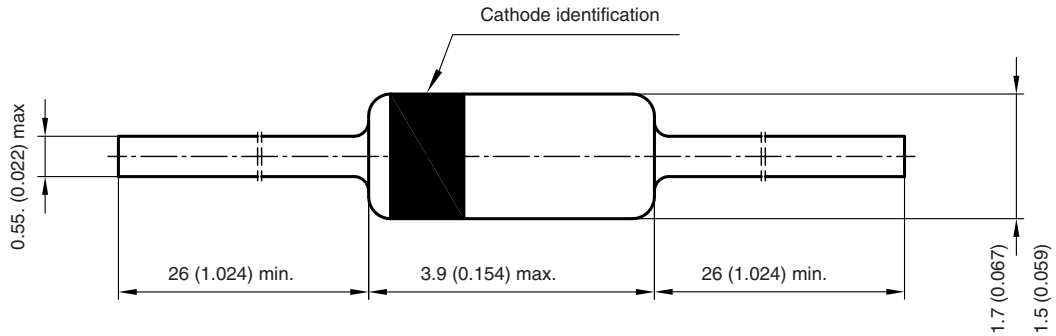


Figure 4. Typical Capacitance vs. Reverse Voltage

Package Dimensions in millimeters (inches): **DO-35**



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