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
- Material categorization: for definitions of compliance please see www.vishay.com/doc?99912

Pb
e2
RoHS COMPLIANT
HALOGEN FREE

LINKS TO ADDITIONAL RESOURCES

3D Models | Marking | Parametric Search | Order Samples

MECHANICAL DATA

Case: DO-35 (DO-204AH)

Weight: approx. 125 mg

Cathode Band Color: black

Packaging Codes/Options:

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

TAP/10K per ammopack (52 mm tape), 50K/box

PARTS TABLE

PART	ORDERING CODE	CIRCUIT CONFIGURATION	TYPE MARKING	REMARKS
BAT41	BAT41-TR or BAT41-TAP	Single	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 (1)		I_F	100	mA
Repetitive peak forward current (1)	$t_p < 1$ s, $\delta < 0.5$	I_{FRM}	350	mA
Surge forward current (1)	$t_p = 10$ ms	I_{FSM}	750	mA
Power dissipation (1)	$T_{amb} = 65$ °C	P_{tot}	200	mW

Note
(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	Valid provided that electrodes are kept at ambient temperature	R_{thJA}	300	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

ELECTRICAL CHARACTERISTICS (T_{amb} = 25 °C, unless otherwise specified)

PARAMETER	TEST CONDITION	SYMBOL	MIN.	TYP.	MAX.	UNIT
Reverse breakdown voltage (1)	$I_R = 100$ µA	$V_{(BR)}$	100	110		V
Leakage current (1)	$V_R = 50$ V, $T_j = 25$ °C	I_R			100	nA
	$V_R = 50$ V, $T_j = 100$ °C	I_R			20	µA
Forward voltage (1)	$I_F = 1$ 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

Note
(1) Pulse test, $t_p = 300$ µs

For technical questions within your region: DiodesAmericas@vishay.com, DiodesAsia@vishay.com, DiodesEurope@vishay.com
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TYPICAL CHARACTERISTICS (T_{amb} = 25 °C, unless otherwise specified)

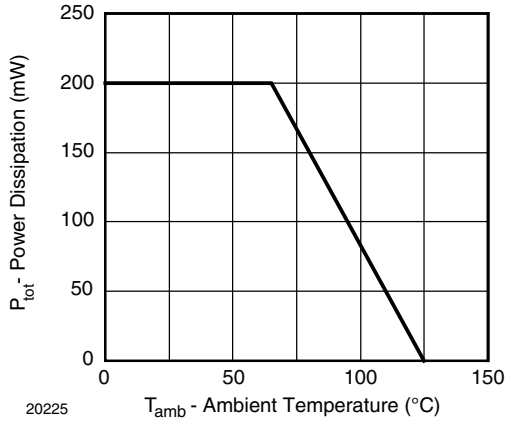


Fig. 1 - Admissible Power Dissipation vs. Ambient Temperature

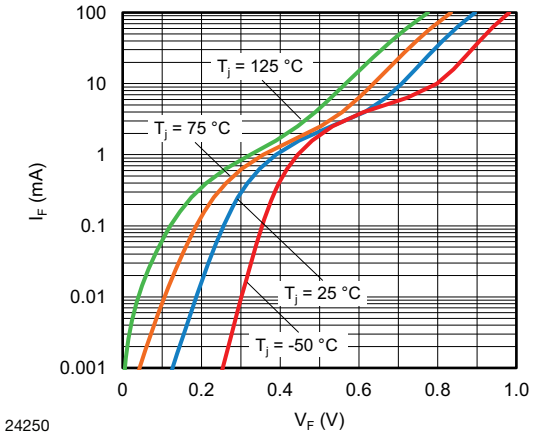


Fig. 3 - Typical Forward Current vs. Forward Voltage

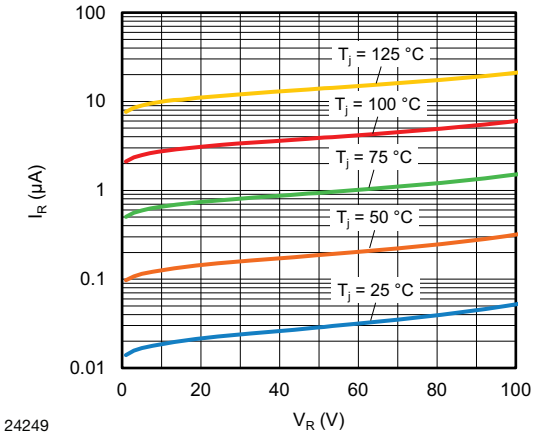


Fig. 2 - Typical Reverse Leakage Current vs. Reverse Voltage

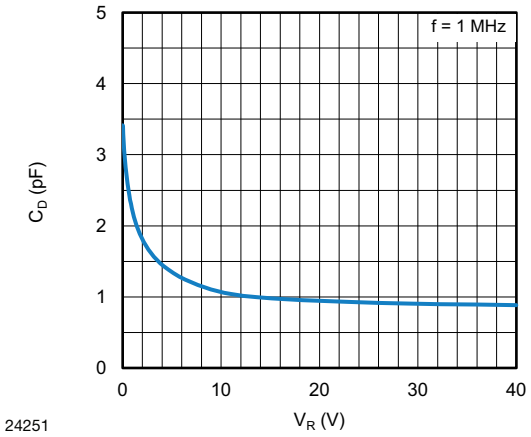
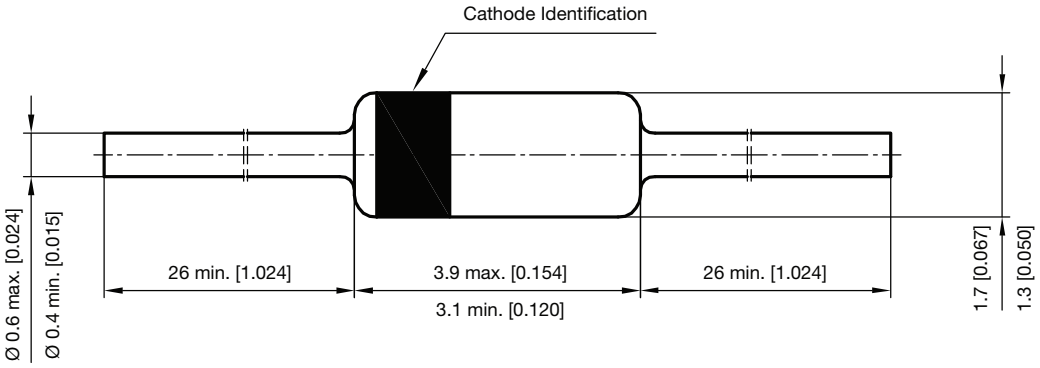


Fig. 4 - Typical Capacitance vs. Reverse Voltage

PACKAGE DIMENSIONS in millimeters (inches): **DO-35 (DO-204AH)**



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