



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



RoHS
COMPLIANT
HALOGEN
FREE

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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 ammpack (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/ammpack

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, δ < 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

TYPICAL CHARACTERISTICS ($T_{amb} = 25\text{ }^{\circ}\text{C}$, unless otherwise specified)

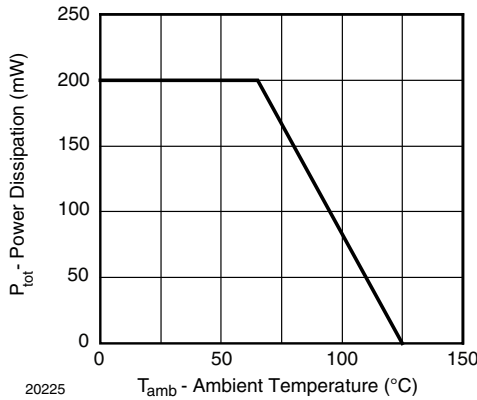


Fig. 1 - Admissible Power Dissipation vs. Ambient Temperature

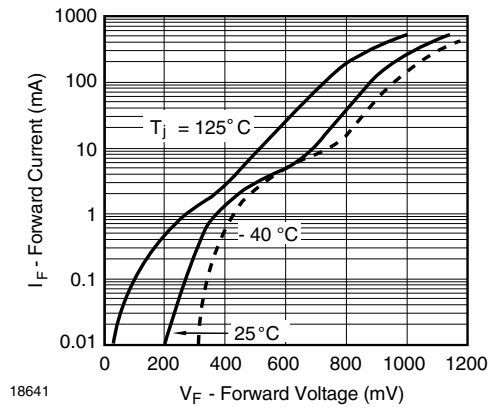


Fig. 3 - Typical Forward Characteristics

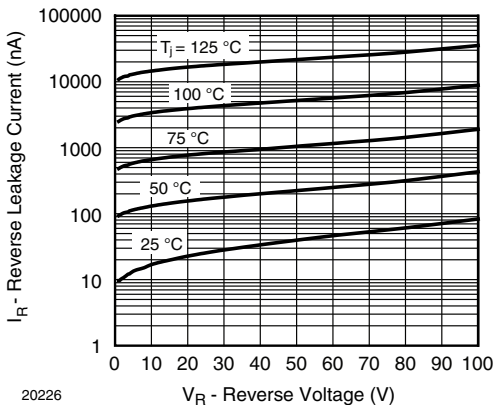


Fig. 2 - Typical Reverse Characteristics

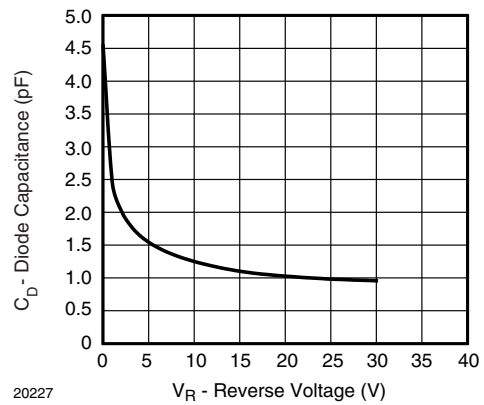
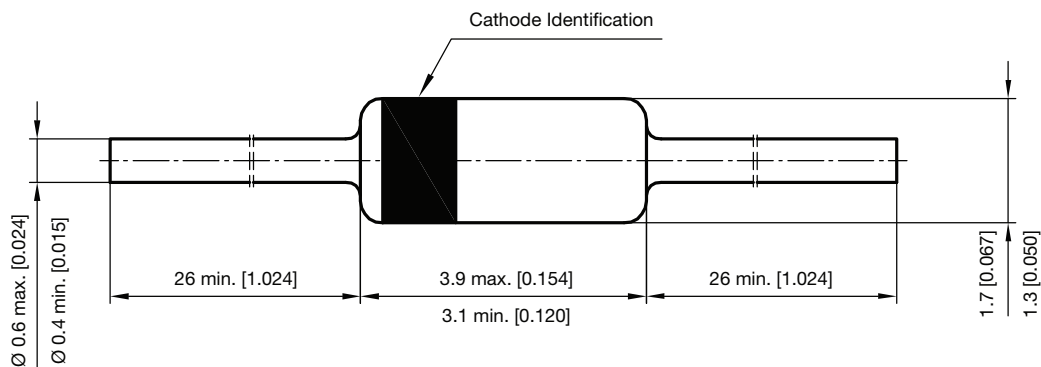


Fig. 4 - Typical Capacitance vs. Reverse Voltage

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



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