

Vishay Semiconductors

Small Signal Schottky Diode



LINKS TO ADDITIONAL RESOURCES







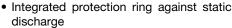


MECHANICAL DATA

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

FEATURES





- Low capacitance
- · Low leakage current
- Low forward voltage drop
- Material categorization: for definitions of compliance please see <u>www.vishay.com/doc?99912</u>

APPLICATIONS

- HF-detector
- · Protection circuit
- · Small battery charger
- AC/DC / DC/DC converters

PARTS TABLE						
PART	TYPE DIFFERENTIATION	ORDERING CODE	CIRCUIT CONFIGURATION	REMARKS		
LL103A	V _R = 40 V	LL103A-GS08 or LL103A-GS18	Single	Tape and reel		
LL103B	V _R = 30 V	LL103B-GS08 or LL103B-GS18	Single	Tape and reel		
LL103C	V _R = 20 V	LL103C-GS08 or LL103C-GS18	Single	Tape and reel		

ABSOLUTE MAXIMUM RATINGS (T _{amb} = 25 °C, unless otherwise specified)						
PARAMETER	TEST CONDITION	PART	SYMBOL	VALUE	UNIT	
		LL103A	V _R	40	V	
Reverse voltage		LL103B	V _R	30	V	
		LL103C	V _R	20	V	
Forward continuous current			I _{FAV}	200	mA	
Peak forward surge current	t _p = 300 μs, square pulse		I _{FSM}	15	Α	
Power dissipation			P _{tot}	400	mW	

THERMAL CHARACTERISTICS (T _{amb} = 25 °C, unless otherwise specified)						
PARAMETER	TEST CONDITION	SYMBOL	VALUE	UNIT		
Thermal resistance junction to ambient air	On PC board 50 mm x 50 mm x 1.6 mm	R _{thJA}	250	K/W		
Junction temperature		Tj	125	°C		
Storage temperature range		T _{stg}	-65 to +150	°C		



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ELECTRICAL CHARACTERISTICS (T _{amb} = 25 °C, unless otherwise specified)							
PARAMETER	TEST CONDITION	PART	SYMBOL	MIN.	TYP.	MAX.	UNIT
	Ι _R = 50 μΑ	LL103A	V _(BR)	40			V
Reverse breakdown voltage		LL103B	V _(BR)	30			V
		LL103C	V _(BR)	20			V
	V _R = 30 V	LL103A	I _R			5	μΑ
Leakage current	V _R = 20 V	LL103B	I _R			5	μΑ
	V _R =10 V	LL103C	I _R			5	μA
Command valtage dress	I _F = 20 mA		V _F			370	mV
Forward voltage drop	I _F = 200 mA		V _F			600	mV
Diode capacitance	V _R = 0 V, f = 1 MHz		C _D		50		pF
Reverse recovery time	$I_F = I_R = 50$ mA to 200 mA, recover to 0.1 I_R		t _{rr}		10		ns

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

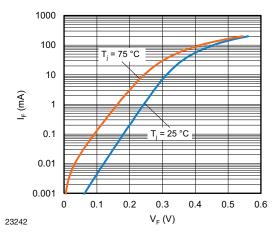


Fig. 1 - Typical Forward Current vs. Forward Voltage

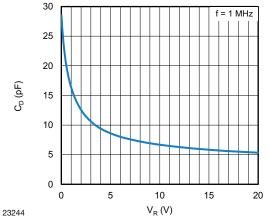


Fig. 3 - Typical Capacitance vs. Reverse Voltage

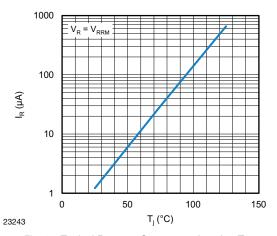
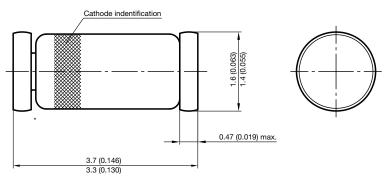


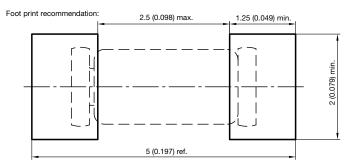
Fig. 2 - Typical Reverse Current vs. Junction Temperature

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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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