

LL103C-GS18 Datasheet

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DiGi Electronics Part Number	LL103C-GS18-DG
Manufacturer	Vishay General Semiconductor - Diodes Division
Manufacturer Product Number	LL103C-GS18
Description	DIODE SCHOT 20V 200MA SOD80
Detailed Description	Diode 20 V 200mA Surface Mount SOD-80 MiniMELF

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Purchase and inquiry

Manufacturer Product Number:

LL103C-GS18

Series:

-

Technology:

Schottky

Current - Average Rectified (Io):

200mA

Speed:

Small Signal =< 200mA (Io), Any Speed

Current - Reverse Leakage @ Vr:

5 μ A @ 10 V

Mounting Type:

Surface Mount

Supplier Device Package:

SOD-80 MiniMELF

Base Product Number:

LL103

Manufacturer:

Vishay General Semiconductor - Diodes Division

Product Status:

Active

Voltage - DC Reverse (Vr) (Max):

20 V

Voltage - Forward (Vf) (Max) @ If:

600 mV @ 200 mA

Reverse Recovery Time (trr):

10 ns

Capacitance @ Vr, F:

50pF @ 0V, 1MHz

Package / Case:

DO-213AC, MINI-MELF, SOD-80

Operating Temperature - Junction:

125°C (Max)

Environmental & Export classification

RoHS Status:

ROHS3 Compliant

REACH Status:

REACH Unaffected

HTSUS:

8541.10.0070

Moisture Sensitivity Level (MSL):

1 (Unlimited)

ECCN:

EAR99


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LL103A, LL103B, LL103C

Vishay Semiconductors

Small Signal Schottky Diode



FEATURES

- Integrated protection ring against static discharge
- Low capacitance
- Low leakage current
- Low forward voltage drop
- Material categorization: for definitions of compliance please see www.vishay.com/doc?99912


RoHS
COMPLIANT

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

APPLICATIONS

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

PARTS TABLE

PART	TYPE DIFFERENTIATION	ORDERING CODE	CIRCUIT CONFIGURATION	REMARKS
LL103A	$V_R = 40\text{ V}$	LL103A-GS08 or LL103A-GS18	Single	Tape and reel
LL103B	$V_R = 30\text{ V}$	LL103B-GS08 or LL103B-GS18	Single	Tape and reel
LL103C	$V_R = 20\text{ V}$	LL103C-GS08 or LL103C-GS18	Single	Tape and reel

ABSOLUTE MAXIMUM RATINGS ($T_{amb} = 25\text{ }^\circ\text{C}$, unless otherwise specified)

PARAMETER	TEST CONDITION	PART	SYMBOL	VALUE	UNIT
Reverse voltage		LL103A	V_R	40	V
		LL103B	V_R	30	V
		LL103C	V_R	20	V
Forward continuous current			I_{FAV}	200	mA
Peak forward surge current	$t_p = 300\text{ }\mu\text{s}$, square pulse		I_{FSM}	15	A
Power dissipation			P_{tot}	400	mW

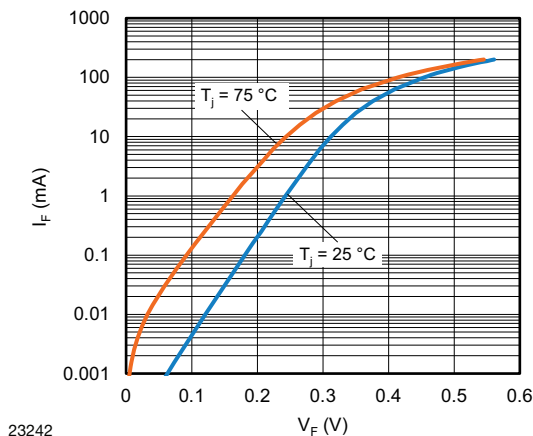
THERMAL CHARACTERISTICS ($T_{amb} = 25\text{ }^\circ\text{C}$, unless otherwise specified)

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		T_j	125	$^\circ\text{C}$
Storage temperature range		T_{stg}	-65 to +150	$^\circ\text{C}$



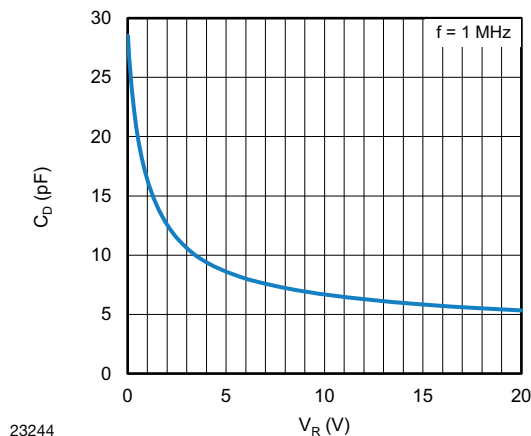
ELECTRICAL CHARACTERISTICS (T _{amb} = 25 °C, unless otherwise specified)							
PARAMETER	TEST CONDITION	PART	SYMBOL	MIN.	TYP.	MAX.	UNIT
Reverse breakdown voltage	I _R = 50 μA	LL103A	V _(BR)	40			V
		LL103B	V _(BR)	30			V
		LL103C	V _(BR)	20			V
Leakage current	V _R = 30 V	LL103A	I _R			5	μA
	V _R = 20 V	LL103B	I _R			5	μA
	V _R = 10 V	LL103C	I _R			5	μA
Forward voltage drop	I _F = 20 mA		V _F			370	mV
	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)



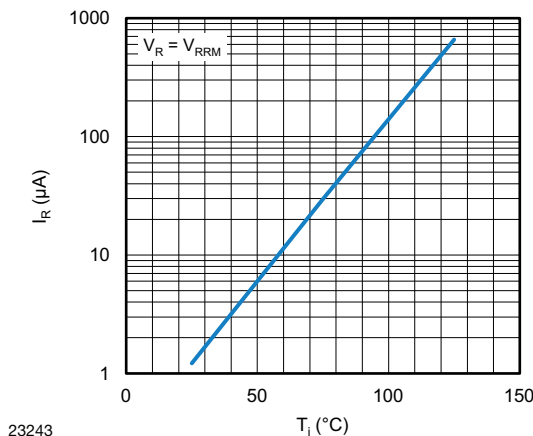
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Fig. 1 - Typical Forward Current vs. Forward Voltage



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Fig. 3 - Typical Capacitance vs. Reverse Voltage



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Fig. 2 - Typical Reverse Current vs. Junction Temperature

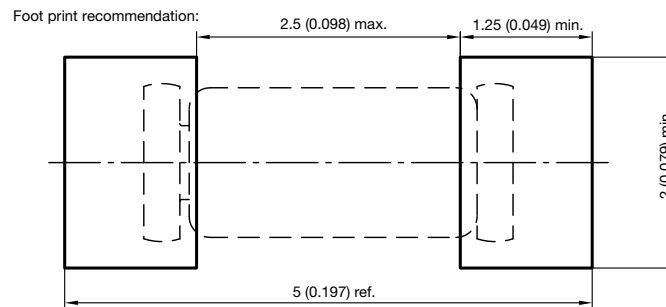
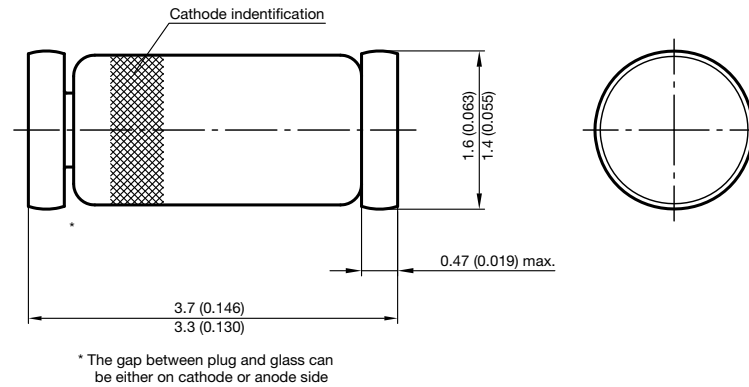


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LL103A, LL103B, LL103C

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PACKAGE DIMENSIONS in millimeters (inches): **MiniMELF (SOD-80)**



Document no.:6.560-5005.01-4
 Rev. 8 - Date: 07.June.2006
 96 12070



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