

Small Signal Schottky Diodes

Features

- Integrated protection ring against static discharge
- Low capacitance
- Low leakage current
- Low forward voltage drop
- Lead (Pb)-free component
- Component in accordance to RoHS 2002/95/EC and WEEE 2002/96/EC



94 9371

Applications

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

Mechanical Data

Case: MiniMELF Glass case SOD80

Weight: approx. 31 mg

Cathode Band Color: black

Packaging Codes/Options:

GS18/10 k per 13" reel (8 mm tape), 10 k/box

GS08/2.5 k per 7" reel (8 mm tape), 12.5 k/box

勝特力材料 886-3-5753170
 勝特力电子(上海) 86-21-34970699
 勝特力电子(深圳) 86-755-83298787
[Http://www.100y.com.tw](http://www.100y.com.tw)

Parts Table

Part	Type differentiation	Ordering code	Type Marking	Remarks
LL103A	$V_R = 40\text{ V}$, V_F at $I_F = 20\text{ mA}$ max. 370 mV	LL103A-GS08 or LL103A-GS18	-	Tape and Reel
LL103B	$V_R = 30\text{ V}$, V_F at $I_F = 20\text{ mA}$ max. 370 mV	LL103B-GS08 or LL103B-GS18	-	Tape and Reel
LL103C	$V_R = 20\text{ V}$, V_F at $I_F = 20\text{ mA}$ max. 370 mV	LL103C-GS08 or LL103C-GS18	-	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	$l = 4\text{ mm}$, $T_L = \text{constant}$		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	l = 4 mm, T _L = constant	R _{thJA}	250	K/W
Junction temperature		T _j	125	°C
Storage temperature range		T _{stg}	- 65 to + 150	°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 to 200 mA, recover to 0.1 I _R		t _{rr}		10		ns

Typical Characteristics

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

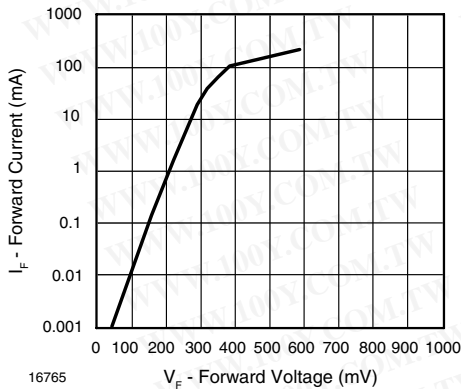


Figure 1. Forward Current vs. Forward Voltage

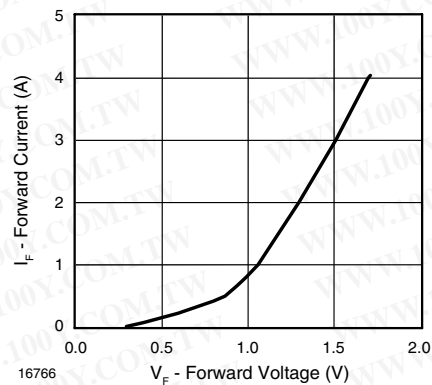


Figure 2. Forward Current vs. Forward Voltage

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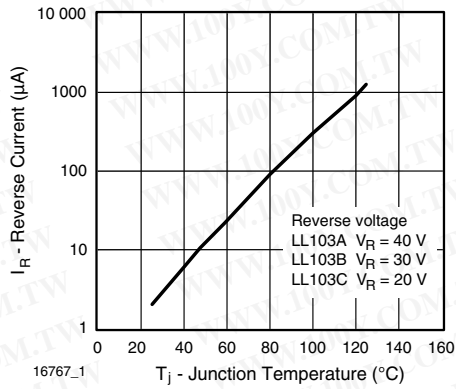


Figure 3. Reverse Current vs. Junction Temperature

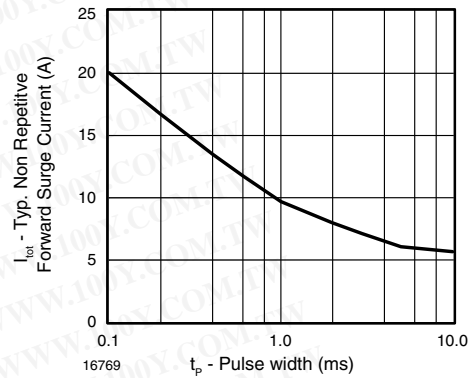


Figure 5. Typ. Non Repetitive Forward Surge Current vs. Pulse width

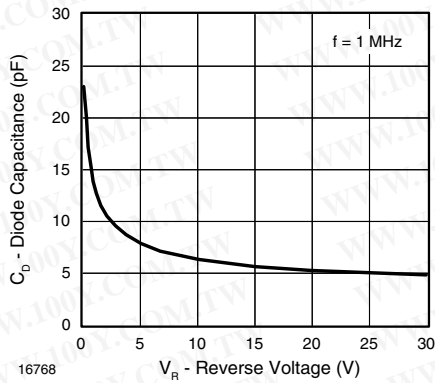
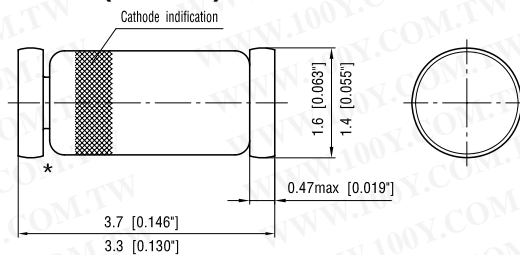


Figure 4. Diode Capacitance vs. Reverse Voltage

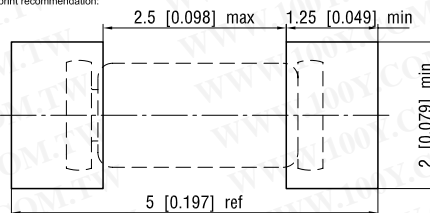
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Package Dimensions in mm (Inches): SOD80



* The gap between plug and glass can be either on cathode or anode side

foot print recommendation:



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