

LL103A - LL103C

FEATURES :

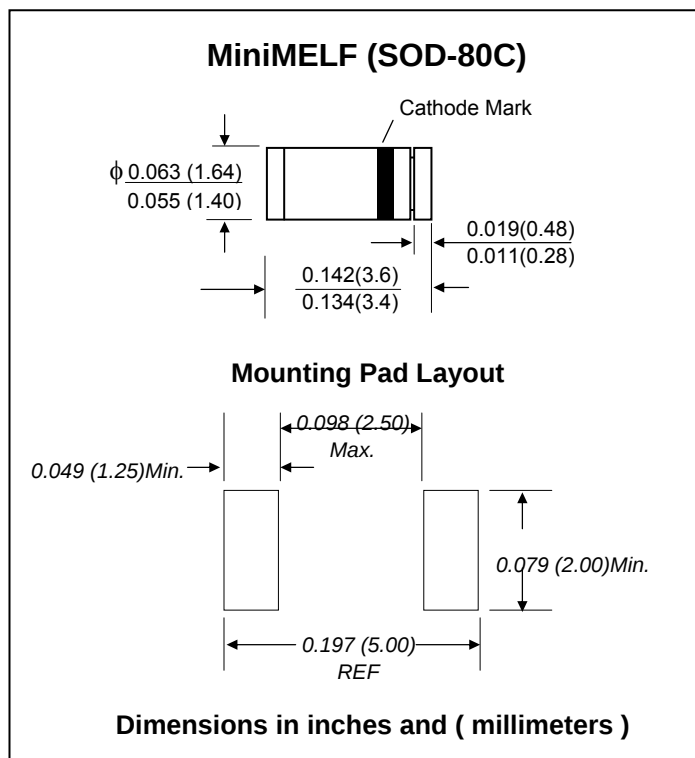
- For general purpose applications
- The LL103A, B, C series is a metal-on-silicon Schottky barrier device which is protected by a PN junction guard ring.
- The low forward voltage drop and fast switching make it ideal for protection of MOS devices, steering, biasing and coupling diodes for fast switching and low logic level applications.
- Other applications are click suppression, efficient full wave bridges in telephone subsets, and blocking diodes in rechargeable low voltage battery systems.
- These diodes are also available in the DO-35 case with type designation SD103A, B, C
- Pb / RoHS Free

MECHANICAL DATA :

Case: MiniMELF Glass Case (SOD-80C)

Weight: approx. 0.05g

SCHOTTKY BARRIER DIODES



Maximum Ratings and Thermal Characteristics (Rating at 25 °C ambient temperature unless otherwise specified.)

Parameter	Symbol	Value	Unit
Repetitive Peak Reverse Voltage	LL103A LL103B LL103C	40 30 20	V
Peak Forward Surge Current (tp = 300 μs, square pulse)	I _{FSM}	15	A
Power Dissipation (Infinite Heatsink) (l = 4mm, T _L = Constant)	P _D	400 ⁽¹⁾	mW
Thermal Resistance Junction to Ambient Air (l = 4mm, T _L = Constant)	R _{θJA}	250	K/W
Junction Temperature	T _J	125	°C
Storage temperature range	T _S	-55 to + 150	°C

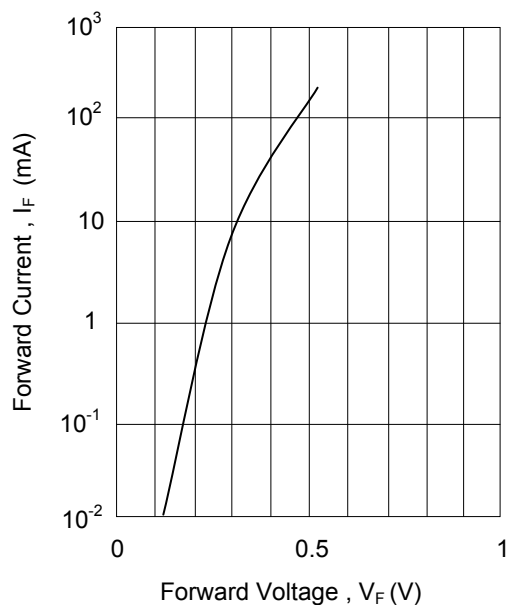
Note: (1) Valid provided that electrodes are kept at ambient temperature.

Electrical Characteristics (T_J = 25 °C unless otherwise noted)

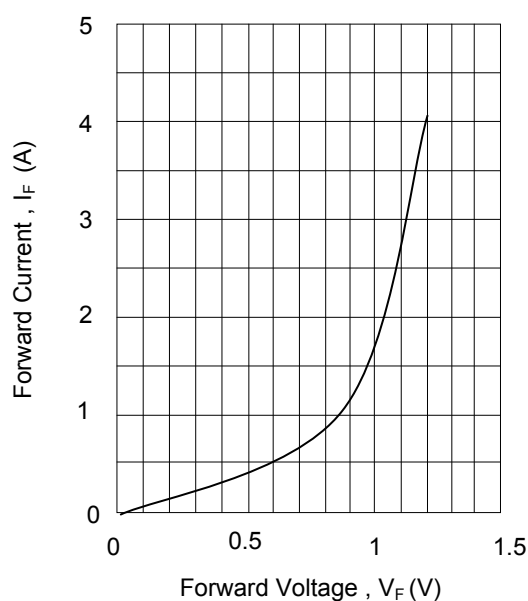
Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
Reverse Current	LL103A LL103B LL103C	V _R = 30 V V _R = 20 V V _R = 10 V	- - -	- - -	5 5 5	μA
Forward Voltage Drop	V _F	I _F = 20mA I _F = 100mA	- -	- -	0.37 0.55	V
Diode Capacitance	C _d	V _R = 0 V, f = 1MHz	-	50	-	pF
Reverse Recovery Time	T _{rr}	I _F = I _R = 5mA to 200mA recover to 0.1I _R	-	10	-	ns

RATING AND CHARACTERISTIC CURVES (LL103A - LL103C)

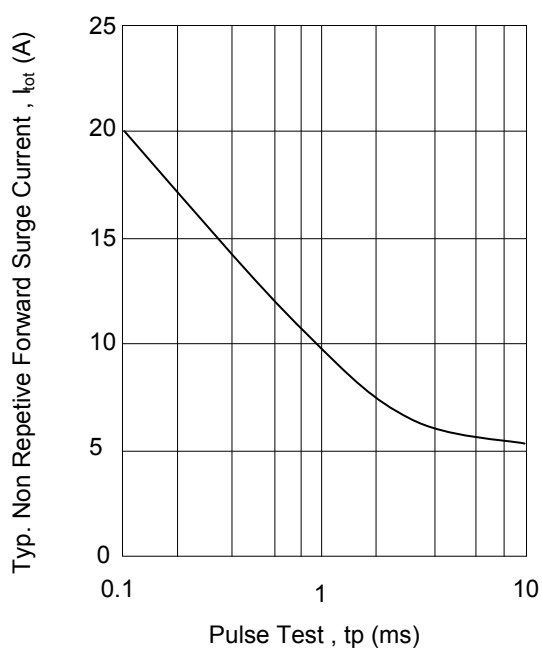
Typical variation of forward current and forward voltage for primary conduction through the schottky barrier



Typical high current forward conduction curve
 $t_p = 300\text{ms}$, duty cycle = 2%



Typical non repetitive forward surge current versus pulse width
Rectangular pulse



Typical variation of reverse current at various temperatures

