

LL103A - LL103C

FEATURES :

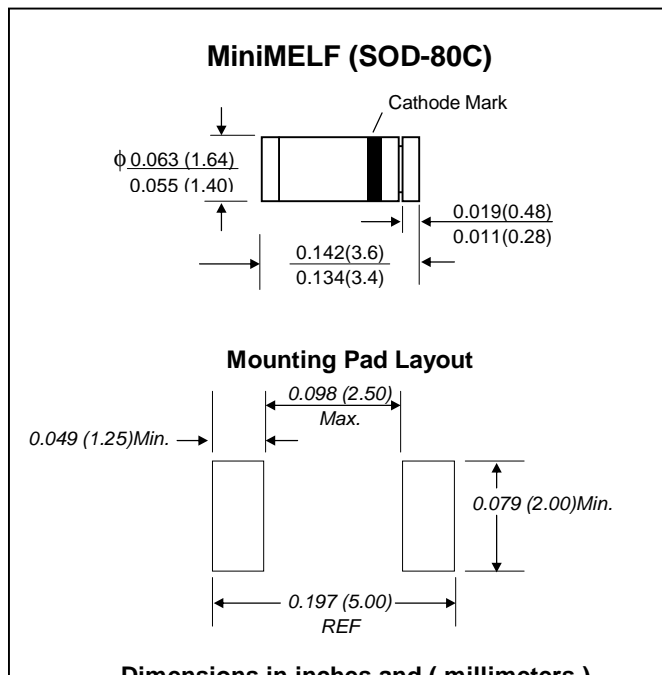
- For general purpose applications
- The LL103A, B, C series is a metal-on-silicon Schottky barrier device which is protected by a PN junction guard ring.
 - The low forward voltage drop and fast switching make it ideal for protection of MOS devices, steering, biasing and coupling diodes for fast switching 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	V_{RRM}	40	V
		30	
		20	
Single Cycle Surge 60 Hz Sine Wave	I_{FSM}	15	A
Power Dissipation (Infinite Heatsink)	P_D	400 ⁽¹⁾	mW
Thermal Resistance Junction to Ambient Air	$R_{\theta JA}$	300 ⁽¹⁾	°C/W
Junction Temperature	T_J	125	°C
Storage temperature range	T_S	-55 to + 150	°C

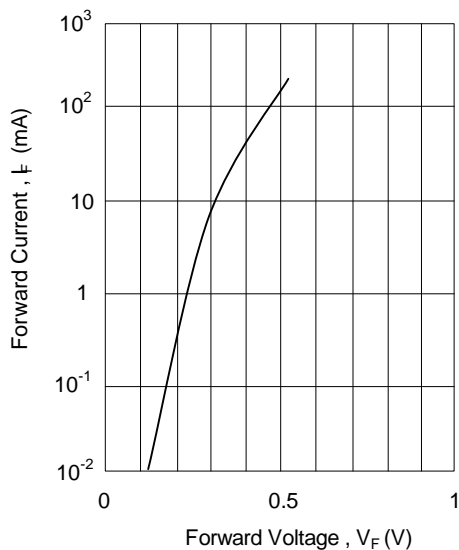
Note: (1) Valid provided that electrodes are kept at ambient temperature.

Electrical Characteristics ($T_J = 25^\circ\text{C}$ unless otherwise noted)

Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
Reverse Current	I_R	$V_R = 30\text{ V}$	-	-	5	μA
		$V_R = 20\text{ V}$	-	-	5	
		$V_R = 10\text{ V}$	-	-	5	
Forward Voltage Drop	V_F	$I_F = 20\text{mA}$	-	-	0.37	V
		$I_F = 200\text{mA}$	-	-	0.6	
Diode Capacitance	C_d	$V_R = 0\text{ V}, f = 1\text{MHz}$	-	50	-	pF
Reverse Recovery Time	T_{rr}	$I_F = I_R = 5\text{mA}$ to 200mA recover to $0.1I_R$	-	10	-	ns

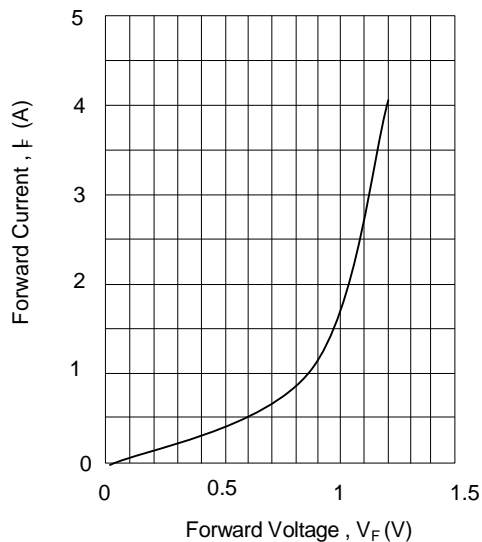
RATING AND CHARACTERISTIC CURVES (LL103A - LL103C)

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

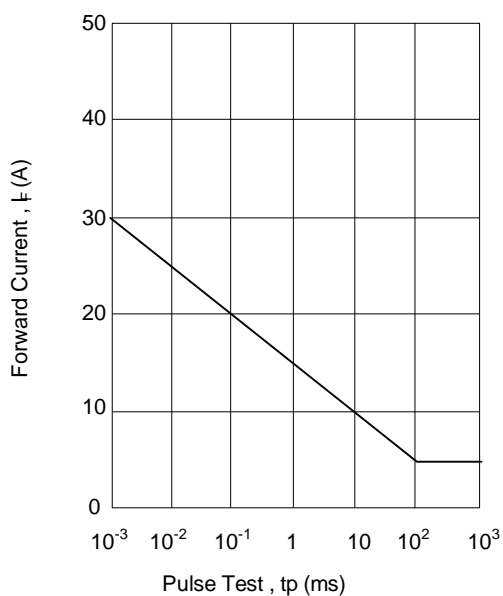


Typical high current forward conduction curve

$t_p = 300ms$, duty cycle = 2%



Typical non repetitive forward surge current versus pulse width Rectangular pulse



Typical variation of reverse current at various temperatures

