LL103A...LL103C

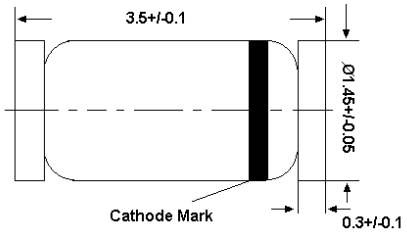
SIlicon Schottky Barrier Diodes

for general purpose applications

The LL103A, B, C 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 uses are for click suppression, efficient full wave bridges in telephone subsets, and as blocking diodes in rechargeable low voltage battery systems.

This diode is also available in DO-35 case with type designation SD103A, B, C.

LL-34



Glass case MiniMELF
Dimensions in mm

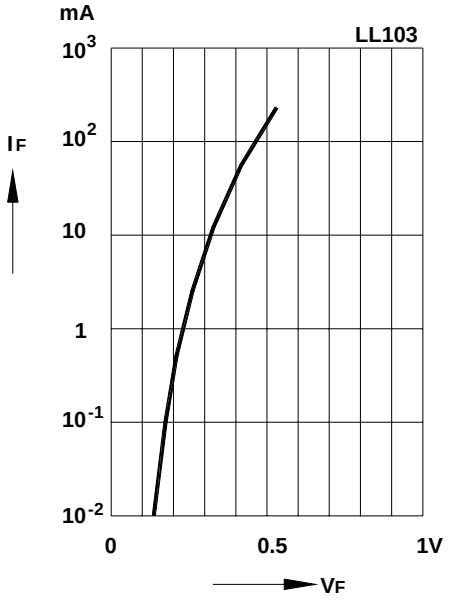
Absolute Maximum Ratings (T_a = 25 °C)

Parameter		Symbol	Value	Unit
Peak Reverse Voltage	LL103A LL103B LL103C	V_{RRM}	40 30 20	V
Single Cycle Surge 60 Hz sinewave		I_{FSM}	15	A
Power Dissipation (Infinite Heatsink) Tc = 3/8 from body Derates at 4 mW/°C to 0 at 125 °C		P_{tot}	400 [1)]	mW
Junction Temperature		T_j	125	°C
Storage Temperature Range		T_{stg}	- 55 to + 175	°C
[1)] Valid provided that electrodes are kept at ambient temperature.				

Characteristics at T_a = 25 °C

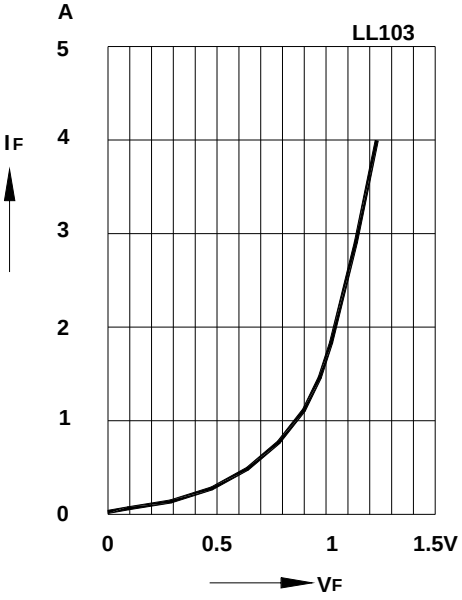
Parameter		Symbol	Typ.	Max.	Unit
Forward Voltage					
Forward Voltage at I_F = 20 mA at I_F = 200 mA		V_F	- -	0.37 0.6	V
Reverse Current at V_R = 30 V at V_R = 20 V at V_R=10 V	LL103A LL103B LL103C	I_R	- - -	5 5 5	µA
Total Capacitance at V_R = 0 V, f = 1 MHz		C_{tot}	50	-	pF
Reverse Recovery Time at I_F = I_R = 5 mA to 200 mA , recover to 0.1 I_R		t_{rr}	10	-	ns

Typical variation of fwd. current vs.fwd.voltage for primary conduction through the Schottky barrier



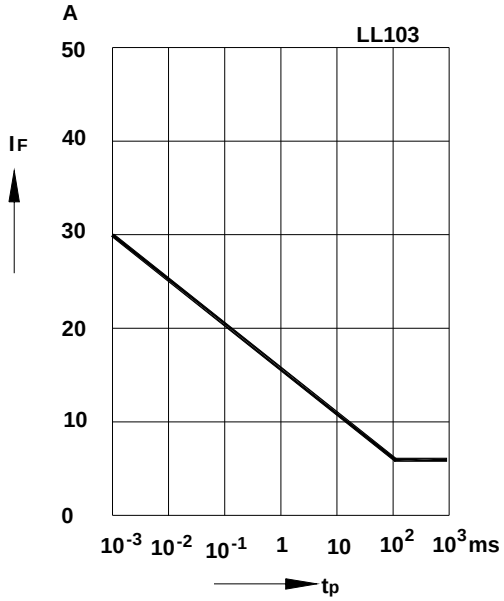
Typical high current forward conduction curve

tp=300μs, duty cycle=2%

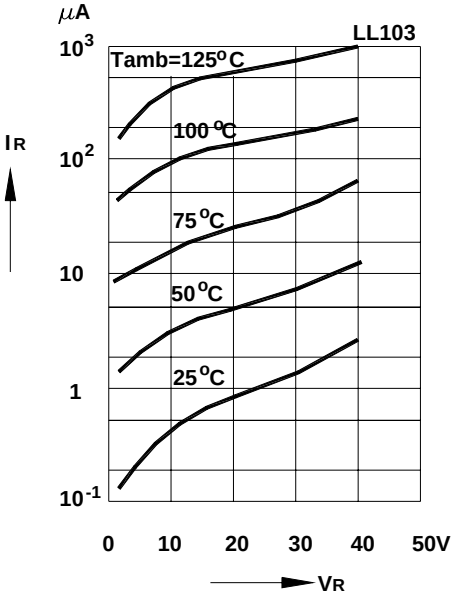


Typical non repetitive forward surge current versus pulse width

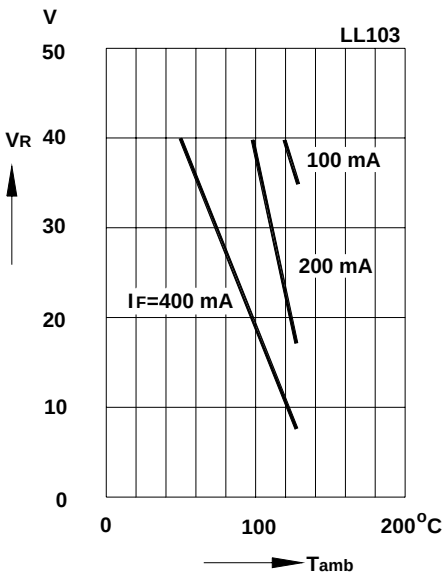
Rectangular pulse



Typical variation of reverse current at various temperatures



Blocking voltage deration versus temperature at various average forward currents



Typical capacitance versus reverse voltage