LL103A thru LL103C

SCHOTTKY DIODE

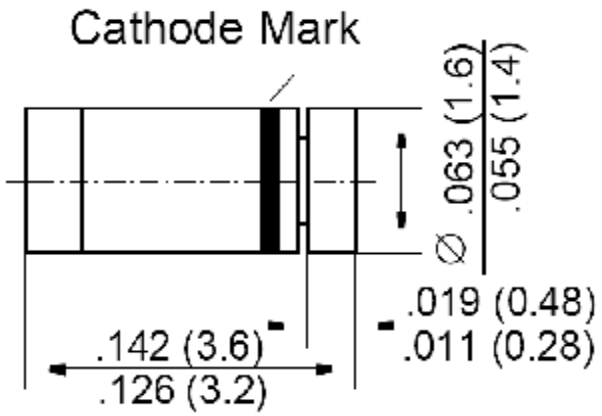
FEATURES

- 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 applications are click suppression, efficient full wave bridges in telephone subsets, and blocking diodes in rechargeable low voltage battery systems.
- This diode is also available in DO-35 case with the type designation SD103A, B, C, and in the SOD-123 case with type designation SD103AW, SD103BW, SD103CW.

MECHANICAL DATA

- Case: MiniMELF Glass Case SOD-80C
- Weight: approx. 0.05 g

MiniMELF



Dimensions in inches and (millienters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25℃ ambient temperature unless otherwise specified

Parameter	Symbol	LL103A	LL103B	LL103C	Units
Peak Inverse Voltage	V_{RRM}	40	30	20	V
Power Dissipation (Infinite Heatsink) TC =3/8″ from Body derates at 4 mW/°C to 0 at 125 °C	P_{tot}	400[1)]			mW
Single Cycle Surge 60-Hz Sine Wave	I_{FSM}	15			A
Junction Temperature	T_J	125			℃
Storage Temperature Range	T_S	-55 to +150			℃

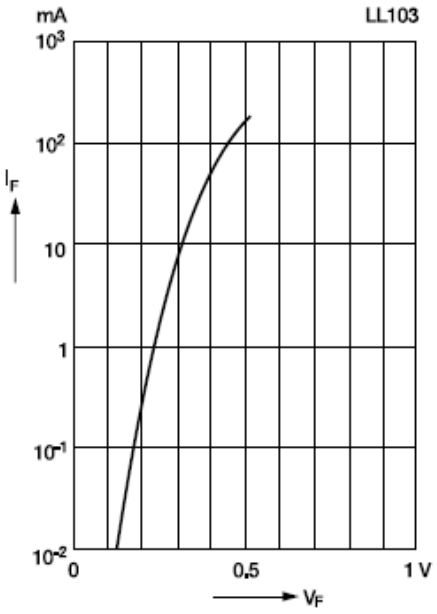
[1)] Valid provided that electrodes are kept at ambient temperature.

ELECTRICAL CHARACTERISTICS

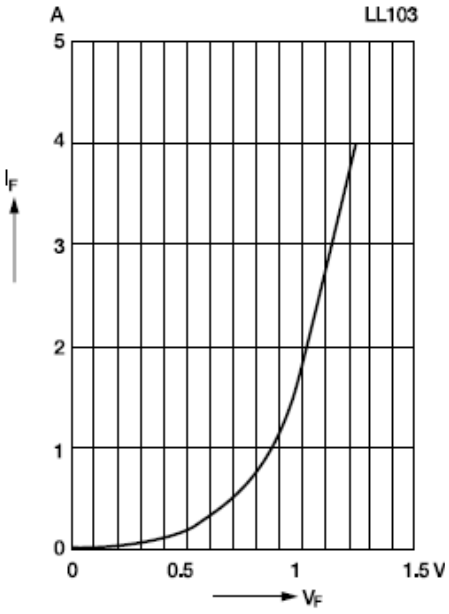
Ratings at 25 °C ambient temperature unless otherwise specified

Parameter	Symbol	Min.	Typ.	Max.	Units
Leakage Current @ V_R=30V LL103A	I_R	-	-	5	μA
@ V_R=20V LL103B		-	-	5	
@ V_R=10V LL103C		-	-	5	
Forward Voltage Drop @I_F=20mA	V_F	-	-	0.37	V
@I_F=200mA		-	-	0.6	
Junction Capacitance at V_R = 0 V, f = 1 MHz	Ctot	-	50	-	pF
Reverse Recovery Time at I_F = I_R = 50 mA to 200 mA, recover to 0.1 I_R	trr	-	10	-	ns

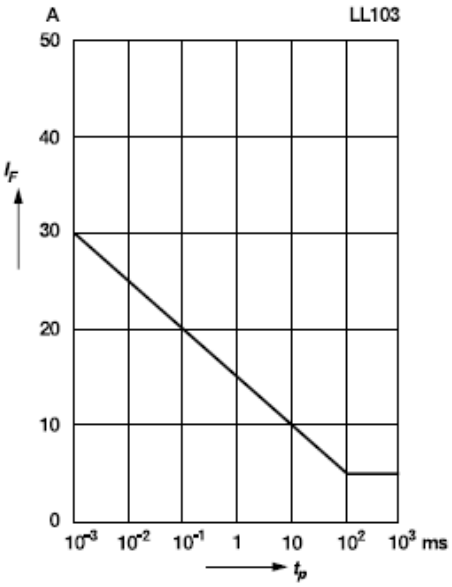
Typical variation of fwd. current vs. fwd. voltage for primary conduction through the Schottky barrier



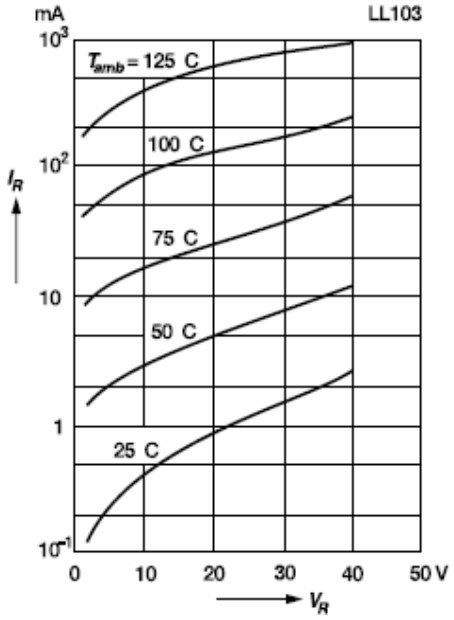
Typical high current forward conduction curve
t_p =300 ms, duty cycle =2%



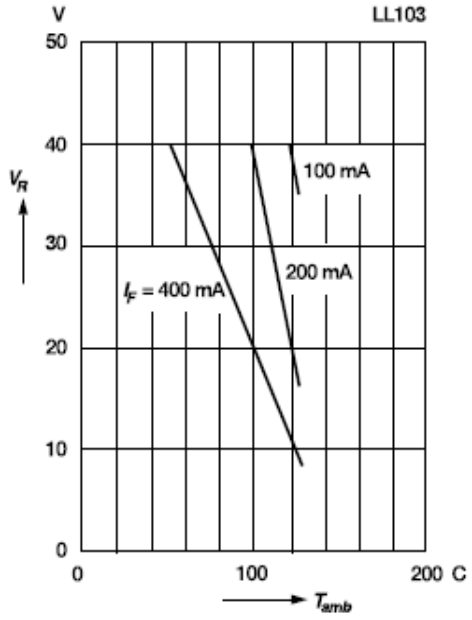
Typical non repetitive forward surge current versus pulse width
Rectangular pulse



Typical variation of reverse current at various temperatures



Blocking voltage deration versus temperature at various average forward currents



Typical capacitance versus reverse voltage