

FAST SWITCHING DIODES

FEATURES

LL34 Glass Case SOD-80C

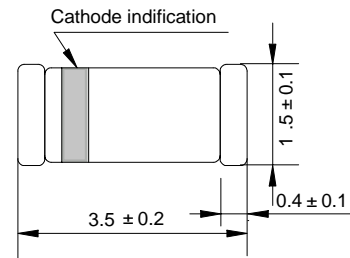
For general purpose applications.

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 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.

LL103A-LL103C



LL-34(SOD-80) Dimensions in millimeters

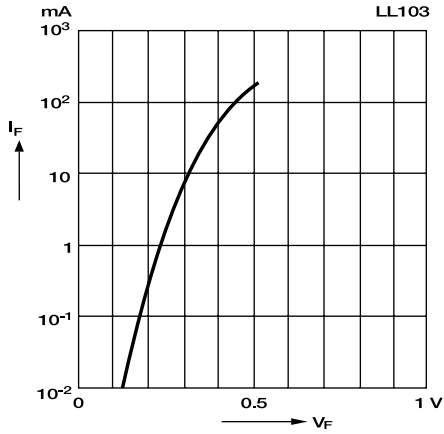
Absolute Maximum Ratings (TA=25°C unless otherwise noted)

	Symbol	Value	Unit
Peak Inverse Voltage	LL103A LL103B LL103C	V_{RRM} 40 V_{RRM} 30 V_{RRM} 20	V V V
Power Dissipation (Infinite Heatsink) $T_C = 3/8''$ 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_S	-55 to +150	°C
Single Cycle Surge 60-Hz Sine Wave	I_{FSM}	15	A
1) Valid provided that electrodes are kept at ambient temperature.			

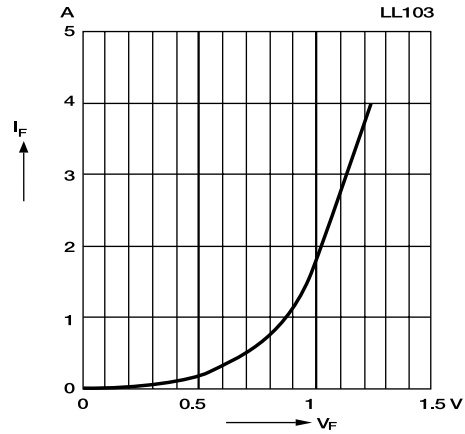
	Symbol	Min.	Typ.	Max.	Unit
Leakage Current at $V_R = 30$ V at $V_R = 20$ V at $V_R = 10$ V	LL103A I_R LL103B I_R LL103C I_R	- - -	- - -	5 5 5	μ A μ A μ A
Forward Voltage Drop at $I_F = 20$ mA at $I_F = 200$ mA	V_F V_F	- -	- -	0.37 0.6	V V
Junction Capacitance at $V_R = 0$ V, $f = 1$ MHz	C_{tot}	-	50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

LL103A-LL103C Typical Characteristics

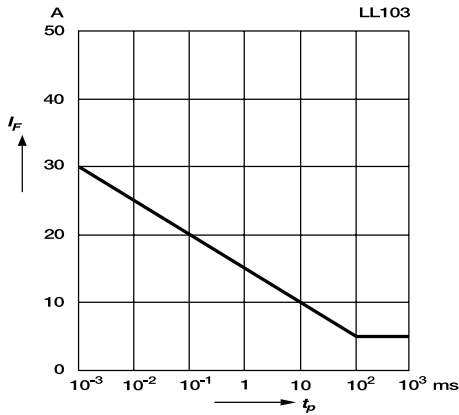
Typical variation of fwd. current vs. fwd. voltage for primary conduction through the Schottky barrier



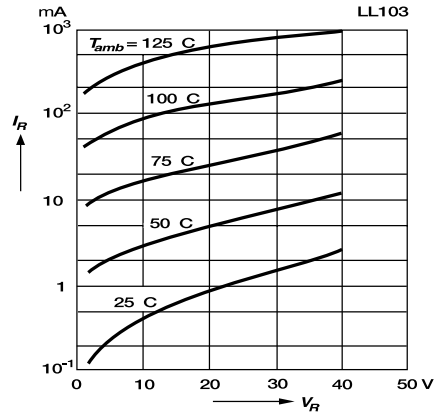
Typical high current forward conduction curve
 $t_p = 300$ ms, duty cycle = 2%



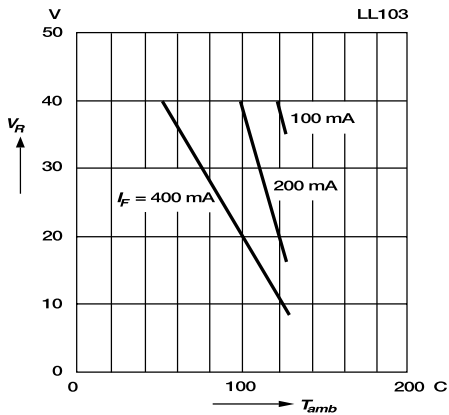
Typical non repetitive forward surge current versus pulse width
Rectangular pulse



Typical variation of reverse current at various temperatures



Blocking voltage deration versus temperature at various average forward currents



Typical capacitance versus reverse voltage

