

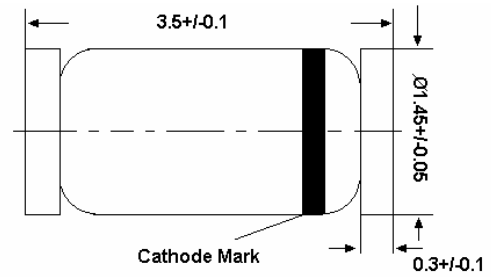
LL103A...LL103C

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.

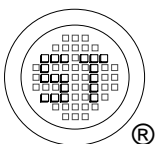
This diode is also available in DO-35 case with type designation SD103A, B, C.



Glass case MiniMELF
Dimensions in mm

Absolute Maximum Ratings ($T_a = 25^\circ\text{C}$)

		Symbol	Value	Unit
Peak Reverse Voltage	LL103A	V_{RRM}	40	V
	LL103B	V_{RRM}	30	V
	LL103C	V_{RRM}	20	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
Single Cycle Surge 60Hz sinewave		I_{FSM}	15	A
Junction Temperature		T_j	125	°C
Storage Temperature Range		T_s	-55 to +175	°C
¹⁾ Valid provided that electrodes are kept at ambient temperature.				



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ISO/TS 16949 : 2002
Certificate No. 05103



ISO 14001:2004
Certificate No. 7116



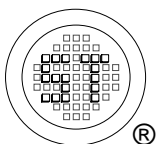
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LL103A...LL103C

Characteristics at $T_{amb} = 25^{\circ}\text{C}$

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



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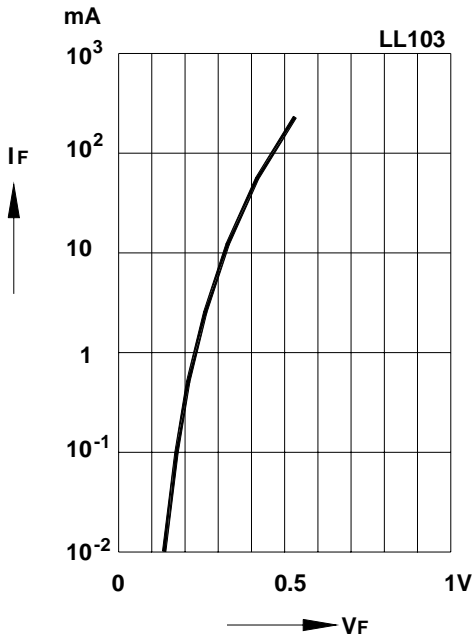


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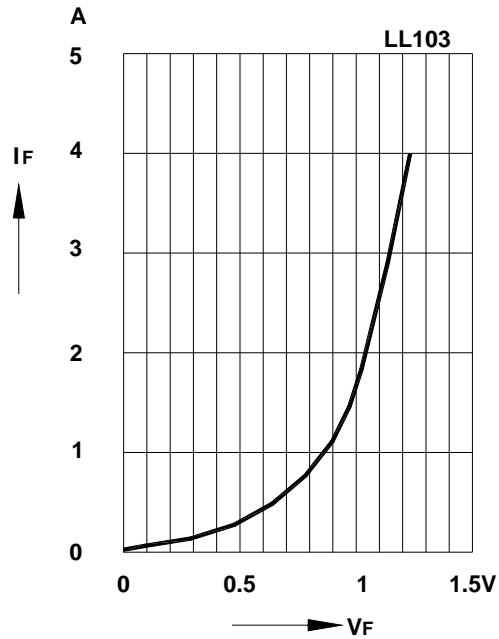
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LL103A...LL103C

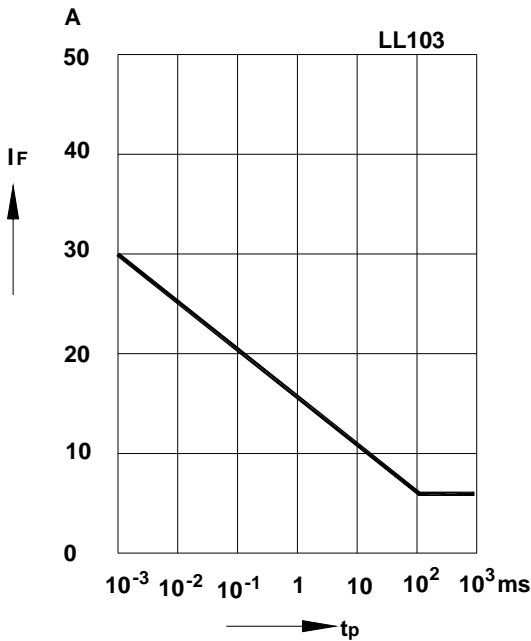
Typical variation of fwd. current vs.fwd.voltage for primary conduction through the Schottky barrier



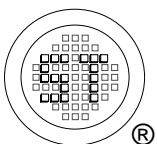
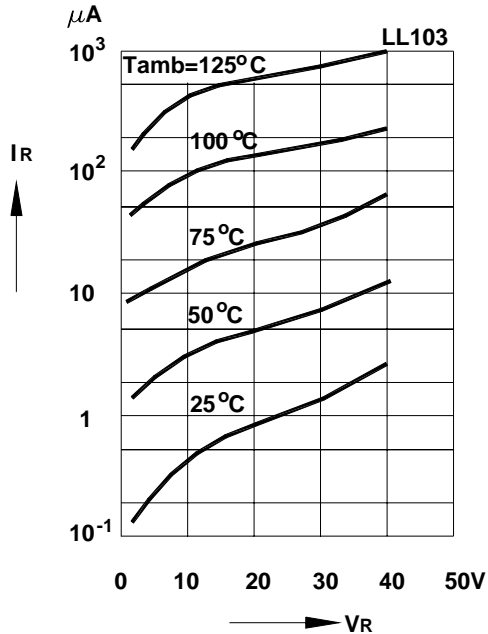
Typical high current forward conduction curve
tp=300μs, duty cycle=2%



Typical non repetitive forward surge current versus pulse width
Rectangular pulse



Typical variation of reverse current at various temperatures



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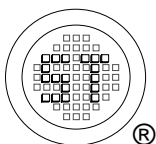
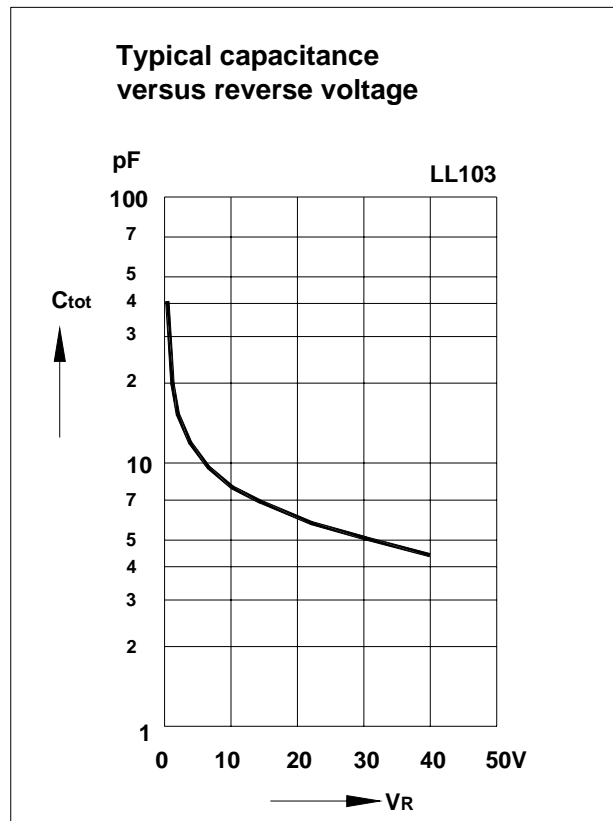
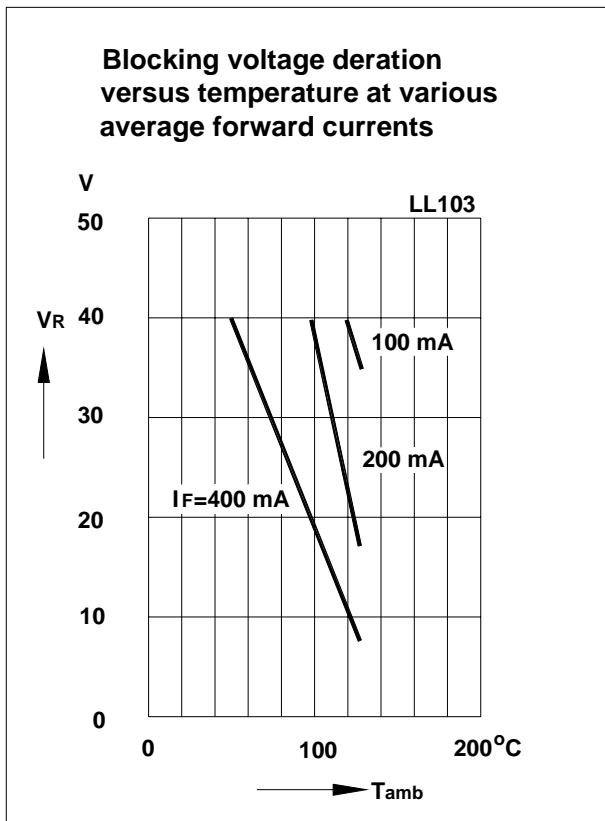
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LL103A...LL103C



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