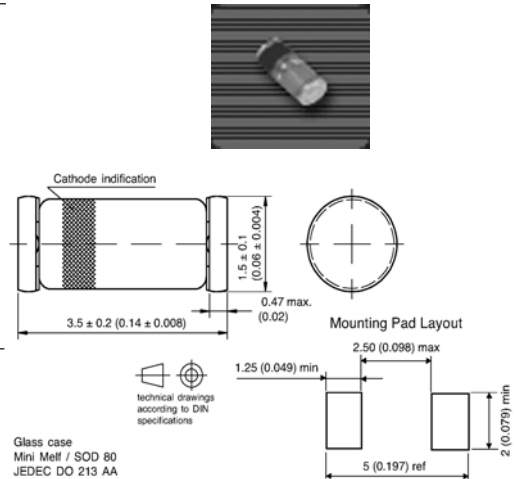


Features

- ◆ 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 designations SD103A thru SD103C.

Mechanical Data

- ◆ Case: MiniMELF Glass Case (SOD-80)
- ◆ Weight: approx. 0.05g
- ◆ Cathode Band Color: Green



Maximum Ratings and Thermal Characteristics

(Ratings at 25°C ambient temperature unless otherwise specified.)

Parameter	Symbol	Value	Unit
Peak inverse voltage	V_{RRM}	40 30 20	Volts
Power dissipation (Infinite heatsink) $T_c=3/8"$ from body derates at 4mW/°C to 0 at 125°C	P_{tot}	400 ⁽¹⁾	mW
Single cycle surge 60-Hz sine wave	I_{FSM}	15	Amps
Junction temperature	T_j	125	°C
Storage temperature range	T_s	-55 to +150	°C

Electrical Characteristics

($T_j=25^\circ\text{C}$ unless otherwise noted.)

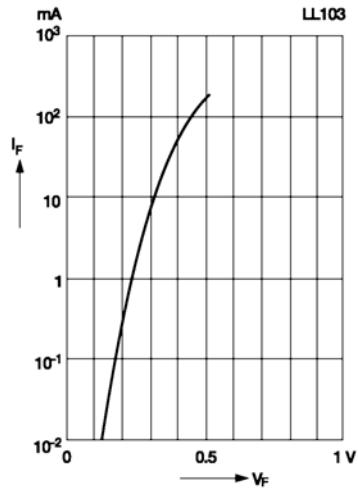
Parameter	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Leakage current	I_R	$V_R=30\text{V}$ $V_R=20\text{V}$ $V_R=10\text{V}$	-	-	5 5 5	μA
Forward voltage drop	V_F	$I_F=20\text{mA}$ $I_F=200\text{mA}$	-	-	0.37 0.6	Volt
Junction capacitance	C_{tot}	$V_R=0\text{V}$, $f=1\text{MHz}$	-	50	-	pF
Reverse recovery time	t_{rr}	$I_F=I_R=50\text{mA}$ to 200mA, recover to $0.1I_R$	-	-	10	nS

Notes: 1. Valid provided that electrodes are kept at ambient temperature.

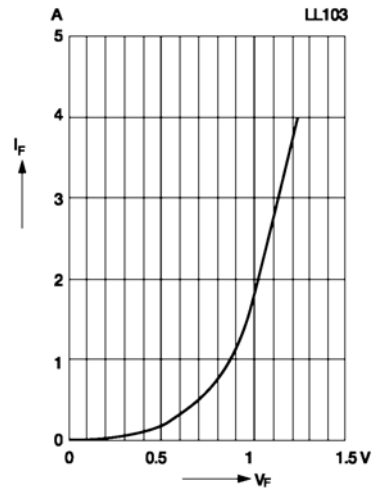
RATINGS AND CHARACTERISTIC CURVES

($T_A = 25^\circ\text{C}$ unless otherwise noted)

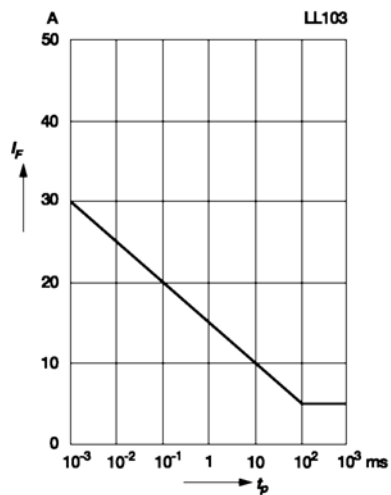
Typical variation of fwd. current
vs. fwd. voltage for primary conduction
through the Schottky barrier



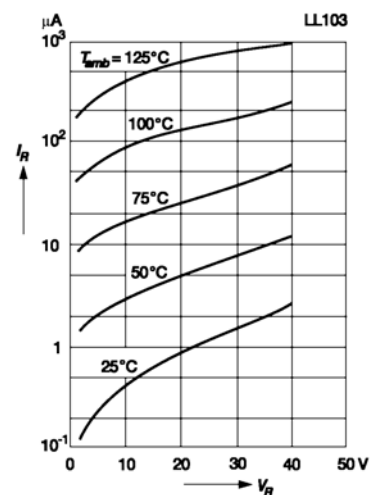
Typical high current forward
conduction curve
 $t_p = 300$ ms, duty cycle = 2%



Typical non repetitive forward surge
current versus pulse width
Rectangular pulse



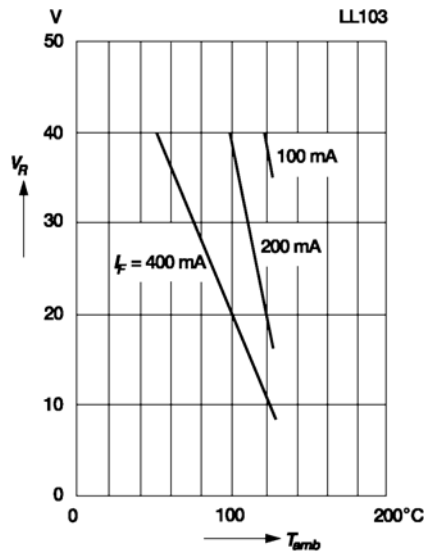
Typical variation of reverse current
at various temperatures



RATINGS AND CHARACTERISTIC CURVES

($T_A = 25^{\circ}\text{C}$ unless otherwise noted)

Blocking voltage deration
versus temperature at various
average forward currents



Typical capacitance
versus reverse voltage

