SEMICONDUCTOR

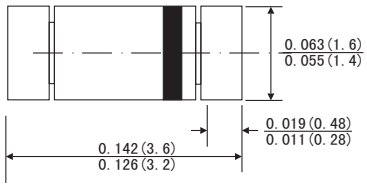
LL103A THUR LL103C

SMALL SIGNAL SCHOTTKY DIODES

FEATURES

- For general purpose applications
- The LL103 series is a Metal-on-silicon junction 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 suppressions, 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 the type designation SD103A to SD103C.
- High temperature soldering guaranteed:260°C/10 seconds at terminals
- Component in accordance to RoHS 2011/65/EU

MiniMELF



Dimensions in inches and (millimeters)

MECHANICAL DATA

- Case: MiniMELF glass case(SOD-80)
- Polarity: Color band denotes cathode end
- Weight: Approx. 0.05 gram

ABSOLUTE RATINGS(LIMITING VALUES)

		Symbols	Value	Units
Peak Reverse Voltage	*LL103A* *LL103B* *LL103C*	V_{RRM} V_{RRM} V_{RRM}	40 30 20	V V V
Power Dissipation (infinite Heat Sink)		P_{tot}	400 [1]	mW
Maximum Single cycle surge 60Hz sine wave		I_{FSM}	15	A
Junction temperature		T_J	125	°C
Storage Temperature Range		T_{STG}	-55 to+150	°C
1) Valid provided that electrodes are kept at ambient temperature				

ELECTRICAL CHARACTERISTICS

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

		Symbols	Min.	Typ.	Max.	Unis
Leakage current at V_R=30V V_R=20V V_R=10V	*LL103A* *LL103B* *LL103C*	I_R I_R I_R			5 5 5	μA μA μA
Forward voltage drop at I_F=20mA I_F=200mA		V_F V_F			0.37 0.6	V V
Junction Capacitance at V_R=0V ,f=1MHz		C_J		50		pF
Reverse Recovery time at I_F=I_R=50mA,recover to 200mA recover to 0.1 I_R		t_{rr}		10		ns

RATINGS AND CHARACTERISTIC CURVES LL103A THRU LL103C

Figure 1. Typical variation of forward current vs. Forward. Voltage for primary conduction through the schottky barrier

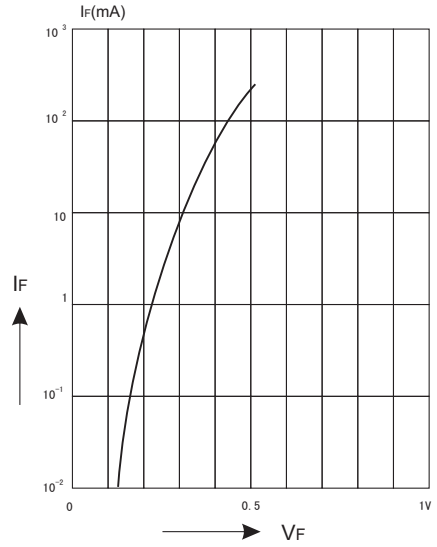


Figure 2. Typical high current forward conduction curve t_p=300ms,duty cycle=2%

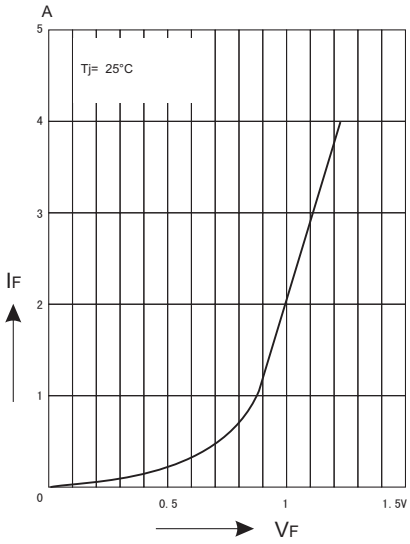


Figure 3. Typical non repetitive forward surge current versus pulse width

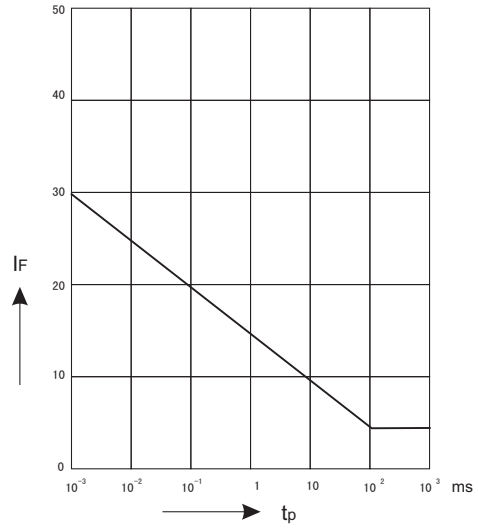


Figure 4. Typical variation of reverse current at various temperatures

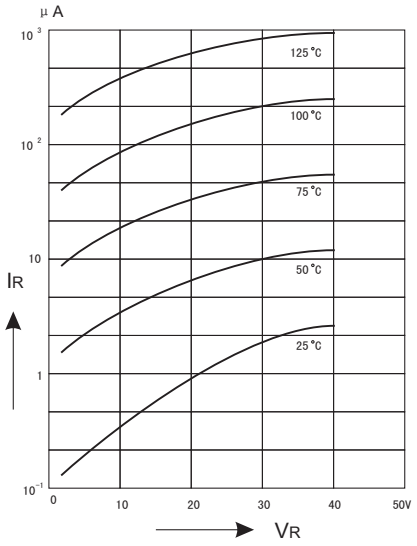


Figure 5. Blocking deration versus temperature at various average forward currents

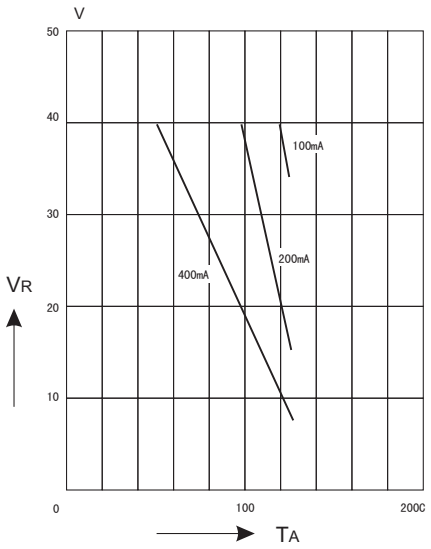


Figure 6. Typical capacitance versus reverse voltage