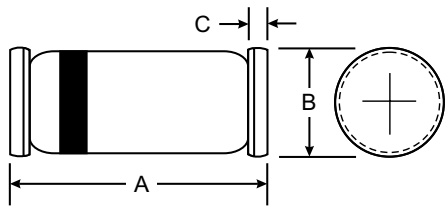
MCL101A - MCL101C

SMALL SIGNAL SCHOTTKY BARRIER DIODES

Features

- Integrated protection ring against static discharge
- Low capacitance
- Low leakage current
- Low forward voltage drop



LL34/ SOD-80		
Dim	**Min**	**Max**
A	3.30	3.70
B	1.30	1.60
C	0.28	0.50
All Dimensions in mm		

Mechanical Data

- Case: LL34 (SOD-80)
- Weight: 0.05 grams
- Marking: Cathode Band Only

RoHS COMPLIANT

Maximum Ratings @ T_A = 25°C unless otherwise specified

Parameter	Test Conditions	Type	Symbol	Value	Unit
Reverse voltage		MCL101A	V_R	60	V
		MCL101B	V_R	50	V
		MCL101C	V_R	40	V
Peak forward surge current	t_p=10μs		I_{FSM}	2	A
Repetitive peak forward current			I_{FRM}	150	mA
Forward current			I_F	30	mA
Junction temperature			T_j	125	˚C
Storage temperature range			T	–65...+150	˚C

Electrical Characteristics

Parameter	Test Conditions	Type	Symbol	Min	Typ	Max	Unit
Reverse Breakdown Voltage	I_R=10μA	MCL101A	$V_{(BR)R}$	60			V
		MCL101B		50			V
		MCL101C		40			V
Leakage current	V_R= 50 V	MCL101A	I_R			200	nA
	V_R= 40 V	MCL101B				200	nA
	V_R= 30 V	MCL101C				200	nA
Forward voltage drop	I_F=1mA	MCL101A	V_F			0.41	V
		MCL101B				0.4	V
		MCL101C				0.39	V
	I_F=15mA	MCL101A	V_F			1	V
		MCL101B				0.95	V
		MCL101C				0.9	V
Diode capacitance	V_R= 0 V, f= 1MHz	MCL101A	C_D			2.0	pF
		MCL101B				2.1	pF
		MCL101C				2.2	pF

Characteristics (T_j = 25°C unless otherwise specified)

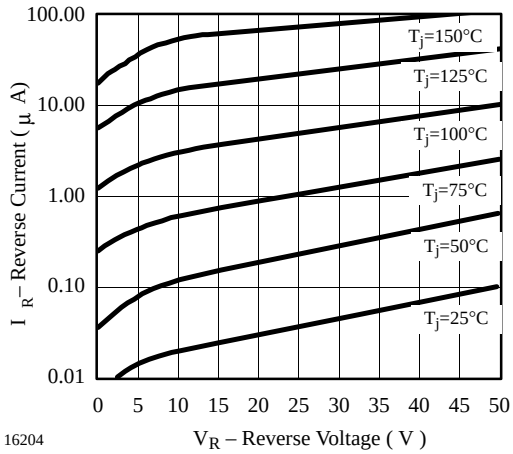


Figure 1. Reverse Current vs. Reverse Voltage

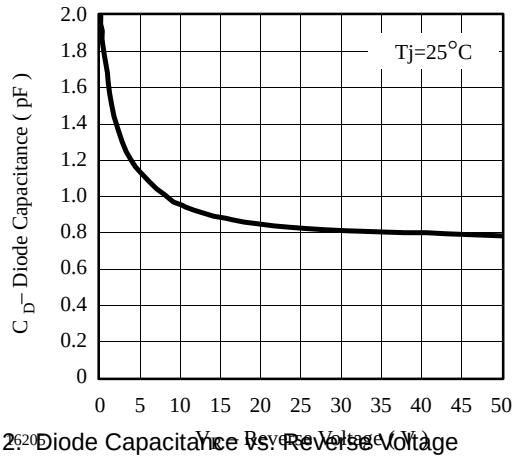


Figure 2. Diode Capacitance vs. Reverse Voltage

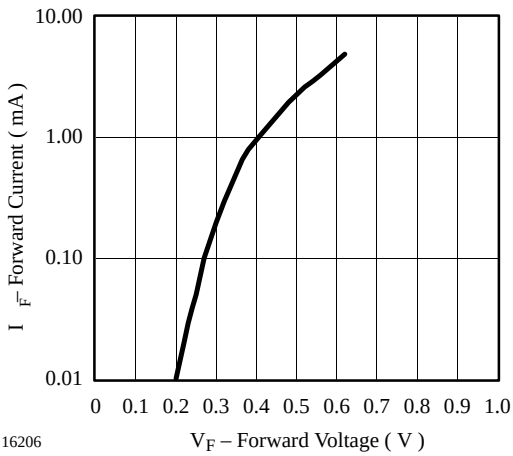


Figure 3. Forward Current vs. Forward Voltage