

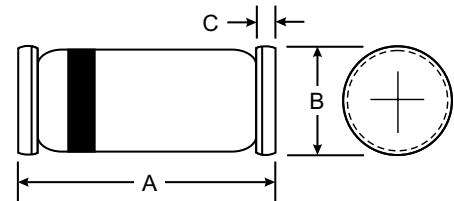


Features

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

Mechanical Data

- Case: SOD-80/LL34, Glass
- Terminals: Solderable per MIL-STD-202, Method 208
- Polarity: Cathode Band
- Weight: 0.05 grams (approx.)



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		

Maximum Ratings @ $T_A = 25^\circ\text{C}$ unless otherwise specified

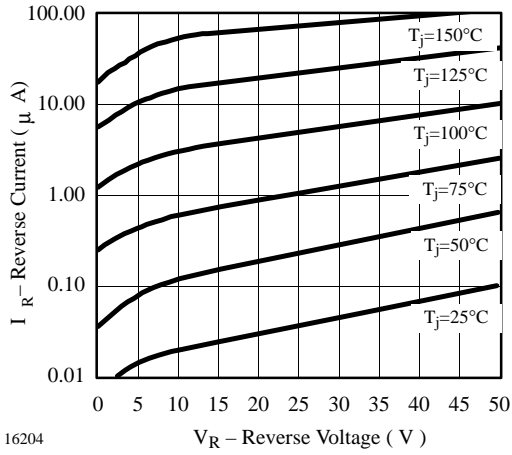
Parameter	Test Conditions	Type	Symbol	Value	Unit
Reverse voltage		MCL101A	V_R	60	V
		MCL101B	V_R	50	V
		MCL101C	V_R	40	V
Peak forward surge current	$t_p=10\mu\text{s}$		I_{FSM}	2	A
Repetitive peak forward current			I_{FRM}	150	mA
Forward current			I_F	30	mA
Junction temperature			T_j	125	$^\circ\text{C}$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

Electrical Characteristics

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



Characteristics ($T_j = 25^\circ\text{C}$ unless otherwise specified)



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Figure 1. Reverse Current vs. Reverse Voltage

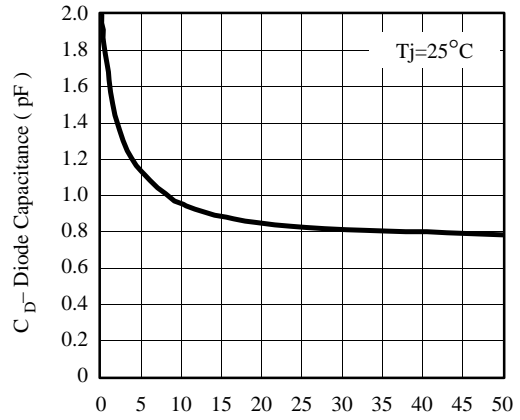
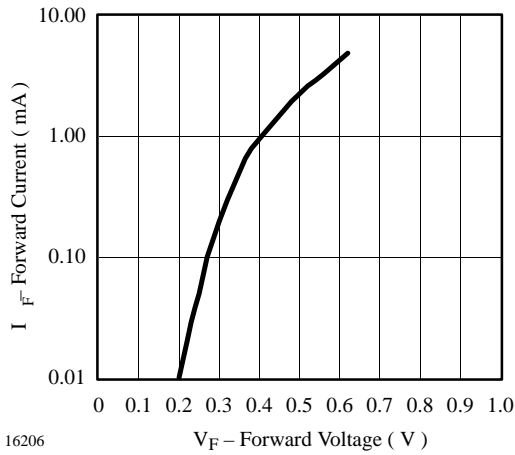


Figure 2. Diode Capacitance vs. Reverse Voltage



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Figure 3. Forward Current vs. Forward Voltage