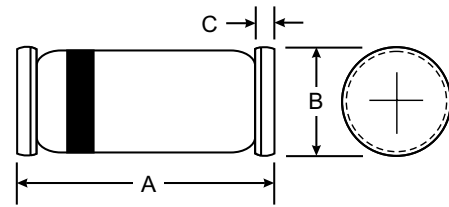


Features

- Low Forward Voltage Drop
- Guard Ring Construction for Transient Protection
- Low Reverse Recovery Time
- Low Reverse Capacitance



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°C unless otherwise specified

Characteristic	Symbol	MCL103A	MCL103B	MCL103C	Unit
Peak Repetitive Reverse Voltage	V _{RRM}				
Working Peak Reverse Voltage	V _{RWM}	40	30	20	V
DC Blocking Voltage	V _R				
RMS Reverse Voltage	V _{R(RMS)}	28	21	14	V
Forward Continuous Current	I _{FM}		350		mA
Repetitive Peak Forward Current @ t ≤ 1.0s	I _{FRM}		1.0		A
Non-Repetitive Peak Forward Surge Current 8.3 ms Half Sine Wave	I _{FSM}		15		A
Power Dissipation	P _d		400		mW
Thermal Resistance, Junction to Ambient Air	R _{θJA}		300		K/W
Operating Junction Temperature	T _j		125		°C
Storage Temperature Range	T _{STG}		-55 to +150		°C

Electrical Characteristics @ T_A = 25°C unless otherwise specified

Characteristic	Symbol	Min	Typ	Max	Unit	Test Condition
Reverse Breakdown Voltage	V _{(BR)R}	40 30 20	—	—	V	I _{RS} = 100μA (pulsed)
Maximum Forward Voltage Drop	V _{FM}	—	—	0.37 0.60	V	I _F = 20mA I _F = 200mA
Maximum Peak Reverse Current	I _{RM}	—	—	5.0	μA	V _R = 30V V _R = 20V V _R = 10V
Junction Capacitance	C _j	—	50	—	pF	V _R = 0V, f = 1.0MHz
Reverse Recovery Time	t _{rr}	—	10	—	ns	I _F = I _R = 50mA to 200mA, I _{rr} = 0.1 x I _R , R _L = 100Ω



RATINGS AND CHARACTERISTIC CURVES MCL103A THRU MCL103C

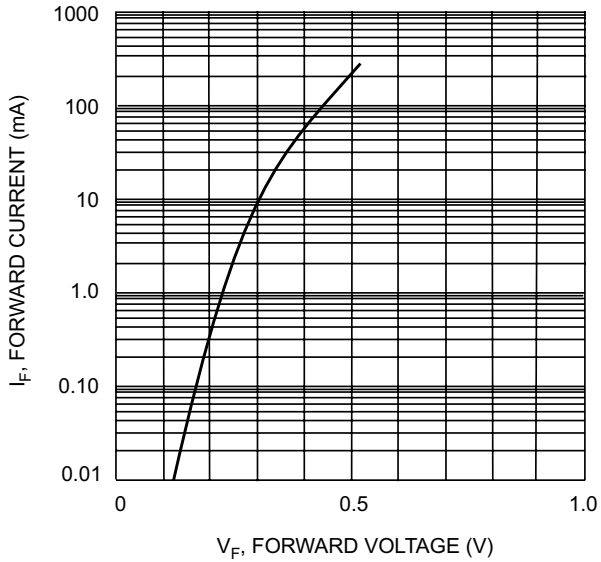


Fig. 1 Typical Forward Characteristics

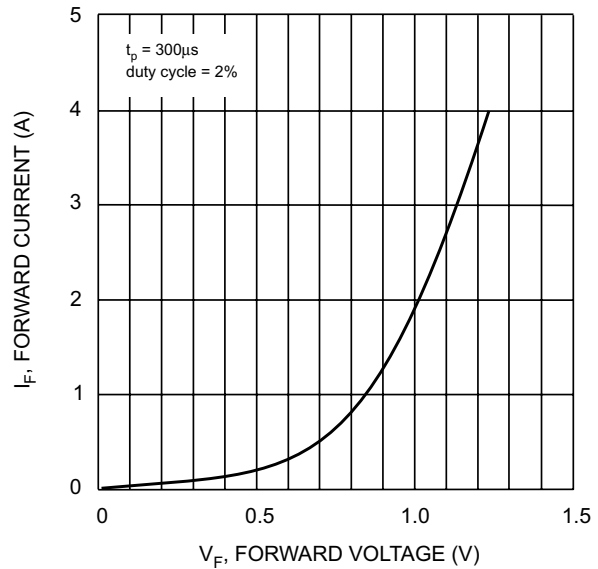


Fig. 2 Typical High Current Fwd Characteristics

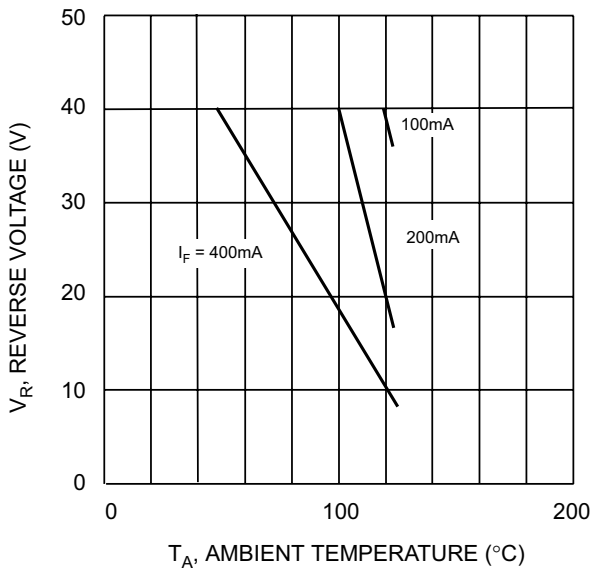


Fig. 3 Blocking Voltage Derating Curves

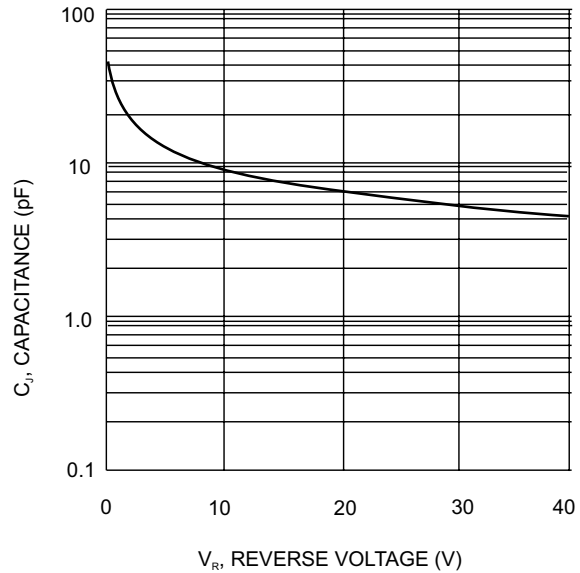


Fig. 4 Typ. Junction Capacitance vs Reverse Voltage