Technical Data
Data Sheet N0718, Rev. -

Green Products

MBR0520L SURFACE MOUNT SCHOTTKY BARRIER DIODE

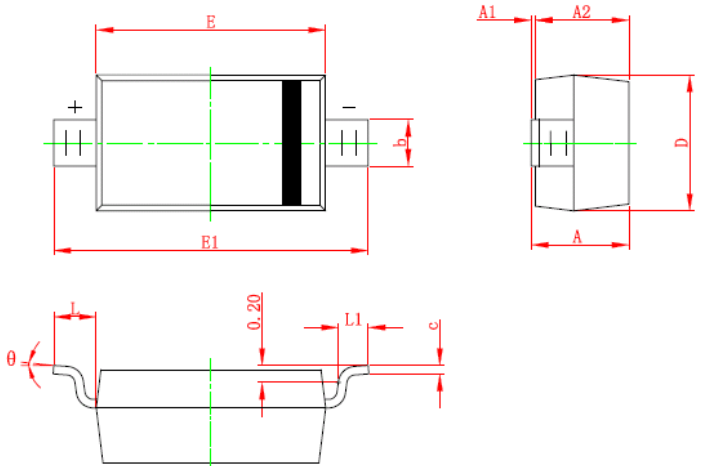
Features:

- Low Turn-on Voltage
- Fast Switching
- PN Junction Guard Ring Transient and ESD Protection
- Designed for Surface Mount Application
- Plastic Material —UL Recognition Flammability Classification 94V-O
- Green Products in Compliance with the ROHS Directive
- This is a Pb − Free Device
- All SMC parts are traceable to the wafer lot
- Additional testing can be offered upon request

Mechanical Data:

- Case: SOD-123, Molded Plastic
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: Cathode Band
- Weight: 0.01 grams(approx)

Mechanical Dimensions: In mm / Inches



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	1.050	1.250	0.041	0.049
A1	0.000	0.100	0.000	0.004
A2	1.050	1.150	0.041	0.045
b	0.450	0.650	0.018	0.026
c	0.080	0.150	0.003	0.006
D	1.500	1.700	0.059	0.067
E	2.600	2.800	0.102	0.110
E1	3.550	3.850	0.140	0.152
L	0.500 REF		0.020 REF	
L1	0.250	0.450	0.010	0.018
θ	0°	8°	0°	8°

SOD-123(CJ)

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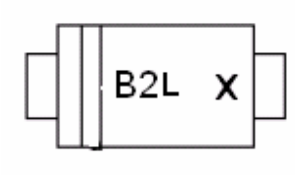
Marking Diagram:



Where X is Date Code

B2L = Part Name

Cautions: Molding resin
Epoxy resin UL:94V-0

Ordering Information:

Device	Package	Shipping
MBR0520L	SOD-123(Pb-Free)	3000pcs / reel

For information on tape and reel specifications, including part orientation and tape sizes, please refer to our Tape and Reel Packaging Specification.

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Maximum Ratings @T_A=25°C unless otherwise specified

Characteristic	Symbol	MBR0520L-G	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_R	20	V
RMS Reverse Voltage	$V_{R(RMS)}$	14	V
Average Rectified Output Current @T_L = 75°C	Io	0.5	A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	5.5	A
Power Dissipation (Note 1)	P_d	410	mW
Typical Thermal Resistance, Junction to Ambient Air (Note 1)	$R_{\theta JA}$	244	°C/W
Operating and Storage Temperature Range	T_j, T_{STG}	-65 to +125	°C

Electrical Characteristics @T_A=25°C unless otherwise specified

Characteristic	Symbol	All Types	Unit	Test Condition
Forward Voltage Drop	V_{FM}	0.3 0.385	V	@ I_F = 0.1A @ I_F = 0.5A
Peak Reverse Leakage Current	I_{RM}	75 250	μA	@ V_R = 50% @ V_R=100% DC Blocking Voltage
Typical Junction Capacitance	C_j	170	pF	V_R = 0V DC, f = 1.0MHz

Note: 1. Valid provided that terminals are kept at ambient temperature.

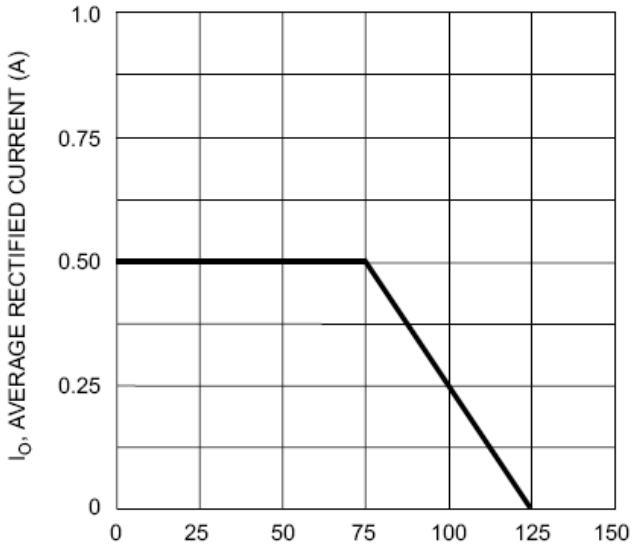

Fig. 1 Forward Current Derating Curve

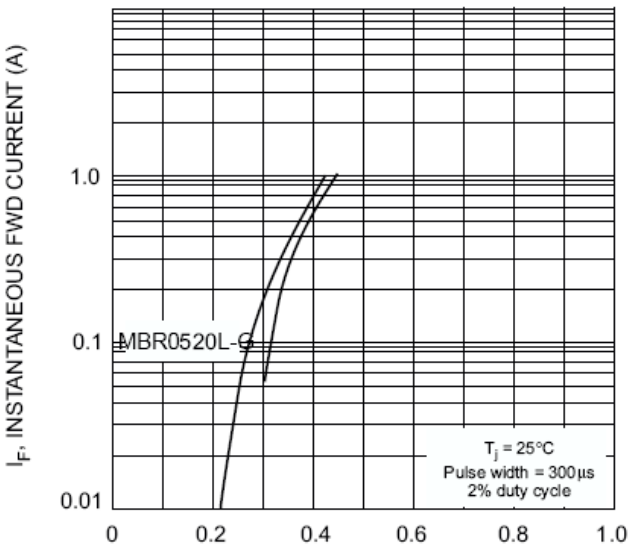

Fig. 2 Typical Forward Characteristics

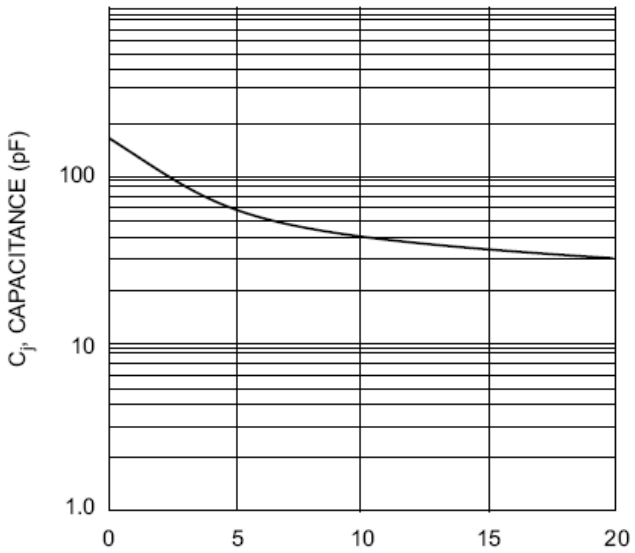

Fig. 3 Typ. Junction Capacitance vs Reverse Voltage

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