

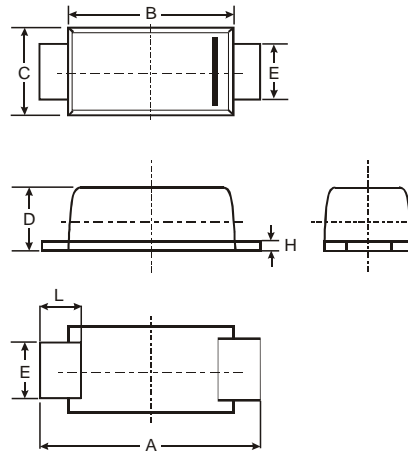
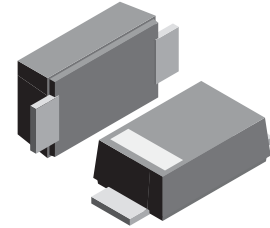
VOLTAGE RANGE: 20 - 100V
CURRENT: 1.0 A

Features

- Fast Switching
- PN Junction Guard Ring for Transient and ESD Protection
- Designed for Surface Mount Application
- Classification 94V-0

Mechanical Data

- Case: SOD-123FL plastic body over passivated junction
- Terminals : Plated axial leads, solderable per MIL-STD-750, Method 2026
- Polarity : Color band denotes cathode end
- Mounting Position : Any
- Weight: 0.0007 ounce, 0.02 grams



SOD-123FL			
Dim	Min	Max	Typ
A	3.58	3.72	3.65
B	2.72	2.78	2.75
C	1.77	1.83	1.80
D	1.02	1.08	1.05
E	0.097	1.03	1.00
H	0.13	0.17	0.15
L	0.53	0.57	0.55
All Dimensions in mm			

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

Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

Characteristic	Symbol	MBR1020VL	MBR1030VL	MBR1040VL	MBR1060VL	MBR10100VL	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_R	20	30	40	60	100	V
Forward Continuous Current (Note 1)	I_F	1.0					A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	25					A
Power Dissipation (Note 1)	P_d	450					mW
Operating and Storage Temperature Range	T_j, T_{STG}	-65 to +125					$^\circ\text{C}$

Characteristic	Symbol	MBR1020VL	MBR1030VL	MBR1040VL	MBR1060VL	MBR10100VL	Unit
Forward Voltage Drop @ $I_F = 1.0\text{A}$	V_{FM}	0.45	0.55	0.55	0.70	0.85	V
Peak Reverse Leakage Current @ V_{RRM}	I_{RM}	500					μA
Typical Junction Capacitance	C_j	50					pF

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

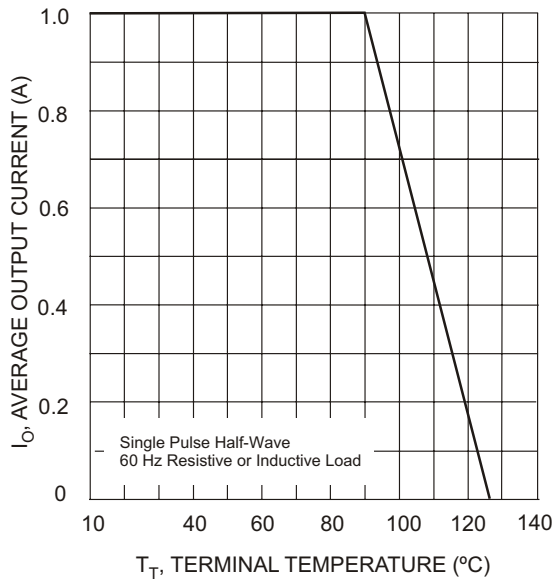


Fig. 1 Forward Current Derating Curve

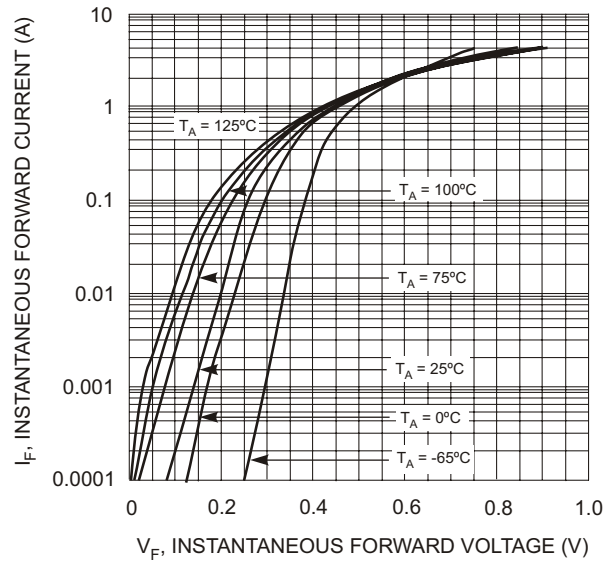


Fig. 2 Typical Forward Characteristics

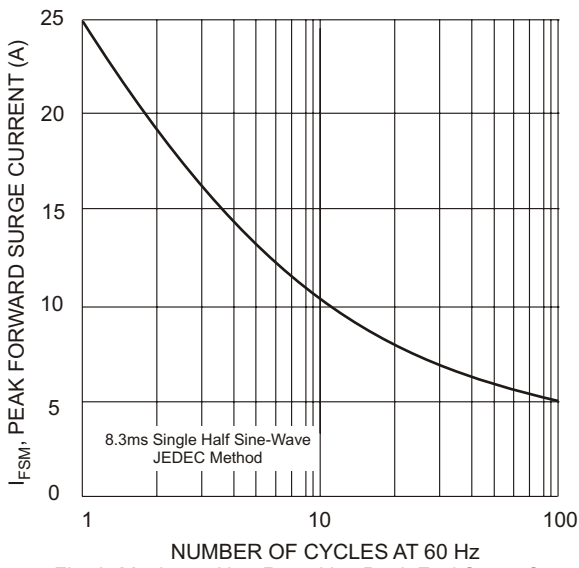


Fig. 3 Maximum Non-Repetitive Peak Fwd Surge Current

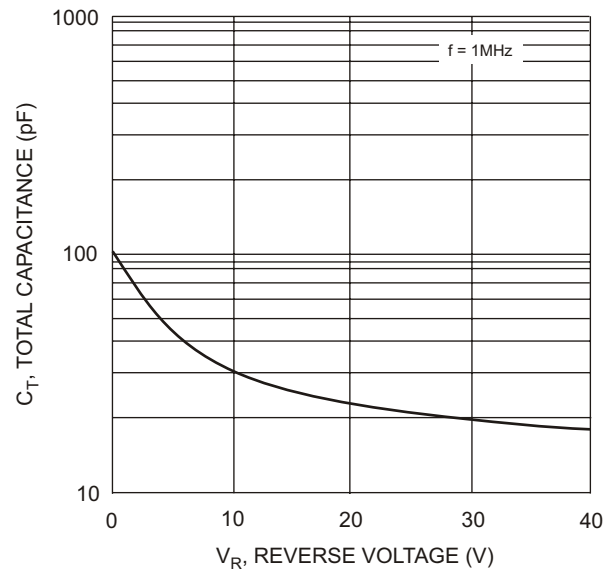


Fig. 4 Typical Total Capacitance