

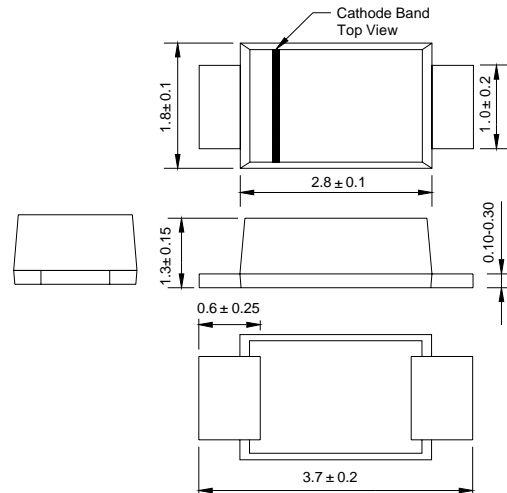
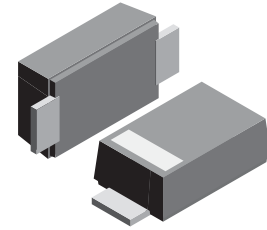
VOLTAGE RANGE: 20 - 100V
CURRENT: 1.0 A

Features

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

Mechanical Data

- Case: SOD-123FL, Molded Plastic
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: Cathode Band
- Weight: 0.017 grams (approx.)



Dimensions in millimeters

SOD-123FL

Maximum Ratings and Electrical Characteristics T_A = 25°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	
	Marking	V20	V30	V40	V60	V100	V	
Peak Repetitive Reverse Voltage	V _{RRM}	20	30	40	60	100	V	
Working Peak Reverse Voltage	V _{RWM}	20	30	40	60	100	V	
DC Blocking Voltage	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						°C

Electrical Characteristics @T_A=25°C unless otherwise specified

Characteristic	Symbol	MBR1020VL	MBR1030VL	MBR1040VL	MBR1060VL	MBR10100VL	Unit	
Forward Voltage Drop @ I _F = 1.0A	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.

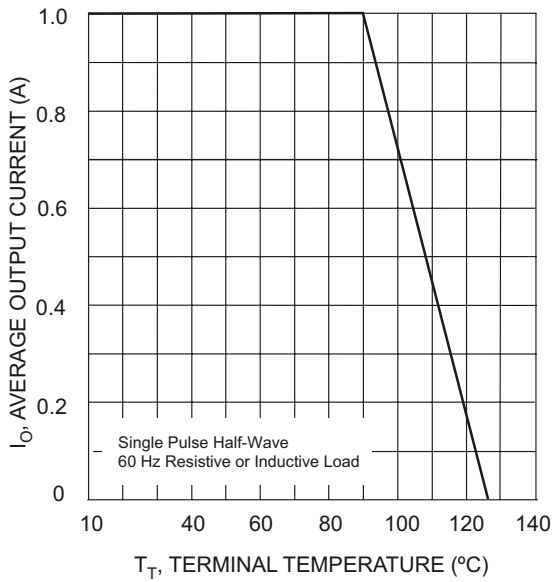


Fig. 1 Forward Current Derating Curve

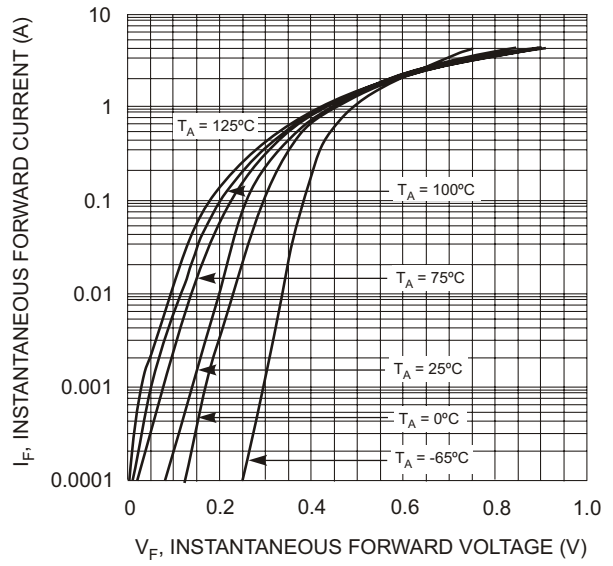


Fig. 2 Typical Forward Characteristics

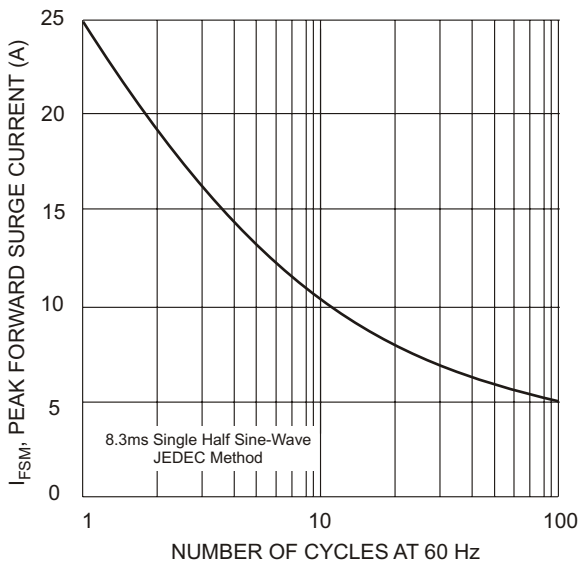


Fig. 3 Maximum Non-Repetitive Peak Fwd Surge Current

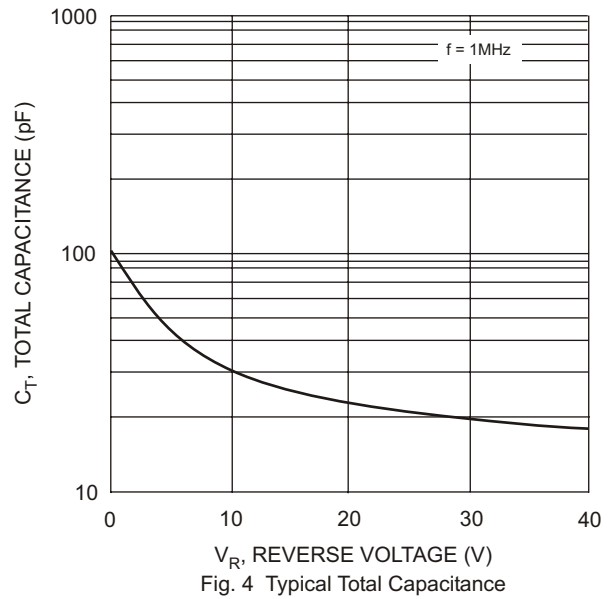


Fig. 4 Typical Total Capacitance