PHY

Super Fast Recovery Rectifier

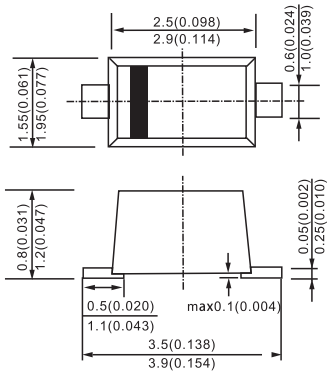
SFM11PL THRU SFM16PL

50V-800V 1.0A

FEATURES

- For Surface Mount Application
- Case Material: Molded Plastic. UL Flammability Classification Rating 94V-0
- Glass Passivated Junction
- Super Fast Recovery Time For High Efficiency

SOD-123FL



Dimensions in millimeters

MECHANICAL DATA

Case: SOD-123FL
Epoxy meets UL 94V-0 flammability rating

Terminals: Matte tin plated leads, solderable per J-STD-002 and JESD22-B102
E3 suffix for consumer grade, meets JESD 201 class 1A whisker test, HE3 suffix for high reliability grade (AEC Q101 qualified), meets JESD 201 class 2 whisker test

Polarity: Color band denotes cathode end

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

MCC Part Number	Device Marking	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
SFM11PL	F1	50V	35V	50V
SFM12PL	F2	100V	70V	100V
SFM13PL	F3	200V	140V	200V
SFM14PL	F4	400V	280V	400V
SFM15PL	F5	600V	420V	600V
SFM16PL	F6	800V	560V	800V

Electrical Characteristics @ 25℃ Unless Otherwise Specified

Average Forward Current	$I_{F(AV)}$	1.0 A	T_L = 110℃
Peak Forward Surge Current	I_{FSM}	30.0A	8.3ms, half sine
Maximum Instantaneous Forward Voltage	V_F	1.3V	I_{FM} =1.0A; T_A = 25℃
Maximum DC Reverse Current At Rated DC Blocking Voltage	I_R	5.0μA 100uA	T_A = 25℃ T_A=55 ℃
Maximum Reverse Recovery Time FSM11PL-14PL FSM15PL FSM16PL	T_{rr}	150ns 250ns 500ns	I_F=0.5A, I_R=1.0A, I_{rr}=0.25A
Typical Junction Capacitance	C_J	15pF	Measured at 1.0MHz, V_R=4.0V

*6.0mm^2 copper pads to each terminal

Figure 1

Typical Reverse Characteristics

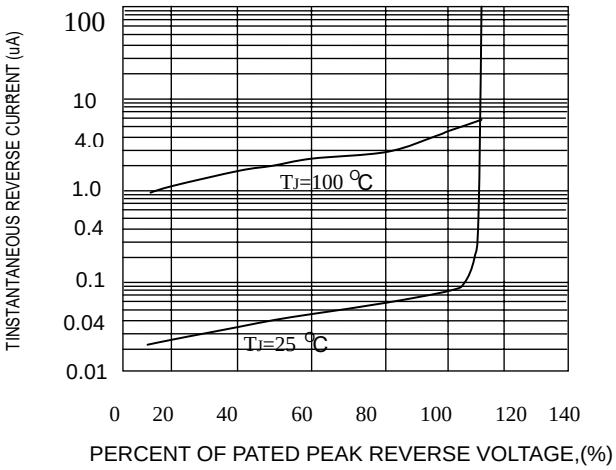


Figure 2

TYPICAL INTANTANEOUS FORWARD CHARACTERISTICS

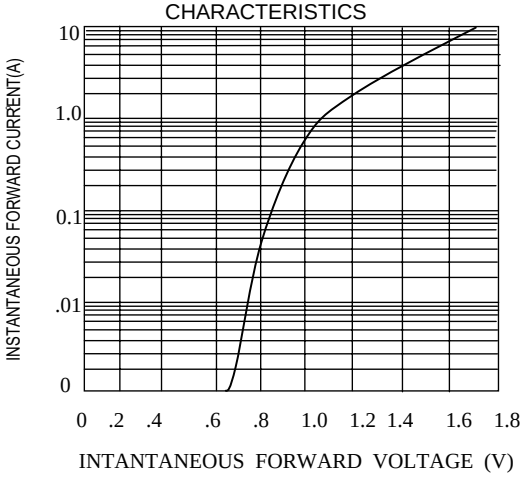


Figure 3

NON-REPETITIVE FORWARD SURGE CURRENT

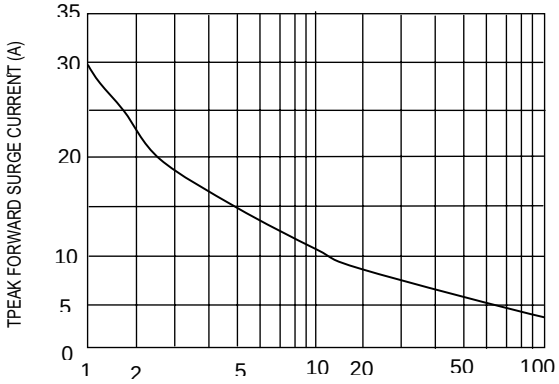


Figure 4

TYPICAL CAPACITANCE