

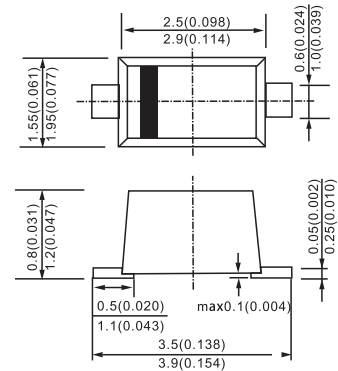
FEATURES

- High Surge Capability
- Low Forward Voltage
- Low Profile Package
- Lead Free Finish/RoHS Compliant(Note 1)
("P" Suffix designates
RoHS Compliant. See ordering information)

MECHANICAL DATA

- Packaging: SOD-123FL
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1
- Marking Code: SM5817PL---K2; SM5818PL---K3 ; SM5819PL---K4

SOD-123FL



Dimensions in millimeters

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Symbol	Rating	Rating	Unit
V_{RMS}	Maximum RMS Voltage	SM5817PL	14
		SM5818PL	21
		SM5819PL	28
V_{RRM}	Repetitive Reverse Voltage	SM5817PL	20
		SM5818PL	30
		SM5819PL	40
$I_{F(AV)}$	Rectified Current (Average) Half Wave Rectification with Resist. Load at $T_L=90^{\circ}C$	1.0	A
I_{FSM}	Surge Forward Current at $T_L=70^{\circ}C, 8.3ms$	30	A
R_{thJA}		88	$^{\circ}C/W$
R_{thJC}	Typical Thermal Resistance(Note2)	43	$^{\circ}C/W$
R_{thJL}		30	$^{\circ}C/W$
P_D	Power Dissipation	1.14	W
T_J	Junction Temperature	-65 to +125	$^{\circ}C$
T_{STG}	Storage Temperature	-65 to +125	$^{\circ}C$

Symbol	Parameter	Min	Typ	Max	Units
V_F	Forward Voltage (@1A dc)	---	0.45	---	V
		---	0.56	---	
		---	0.60	---	
I_R	Leakage Current				
		@ $T_A=25^{\circ}C$	0.1	---	mA
		@ $T_A=100^{\circ}C$	9.0	---	mA
C_j	Typical Junction Capacitance @ $f=1.0MHz, V_r=4V$	---	110	---	pF

Note: 1. High Temperature Solder Exemptions Applied, see EU Directive Annex 7.

2. Thermal Resistance : PC Board Mounted on 0.2*0.2"(5*5mm) copper pad area.

TESTING AND CHARACTERISTIC CURVES SM5817PL THRU SM5819PL

Fig. 1-TYPICAL FORWARD CURRENT

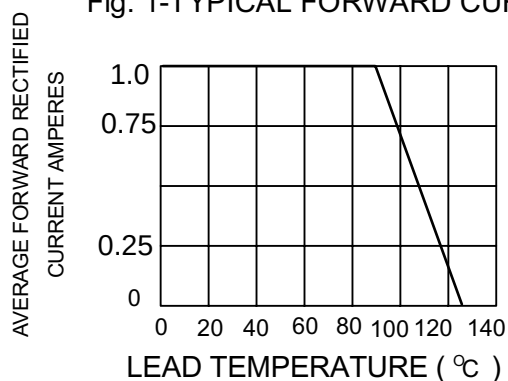


Fig. 2-TYPICAL FORWARD CHARACTERISTICS

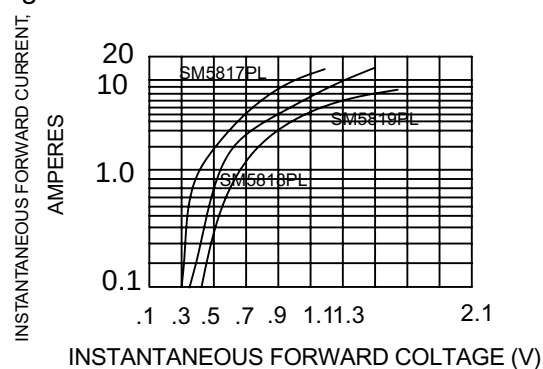


Fig. 3-TYPICAL REVERSE CHARACTERISTICS

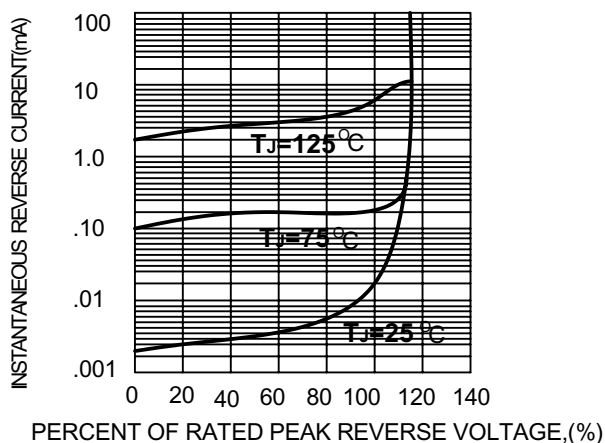


Fig. 4-FORWARD SURGE CURRENT

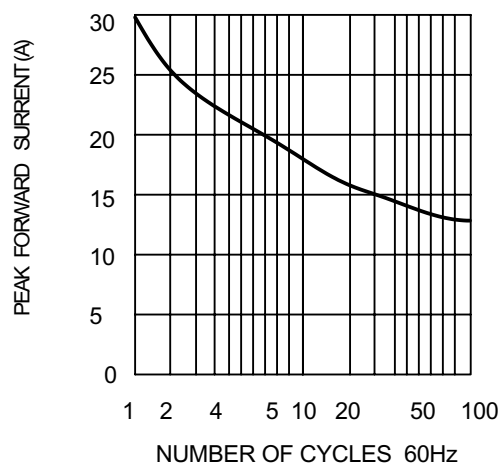


Fig. 5-TYPICAL JUNCTION CAPACITANCE

