



**THE DATASHEET OF
SM5818PL-TP**



SM5817PL THRU SM5819PL

Schottky Barrier Diodes 20 to 40 Volts

Features

- Halogen free available upon request by adding suffix "-HF"
- 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

Maximum Ratings

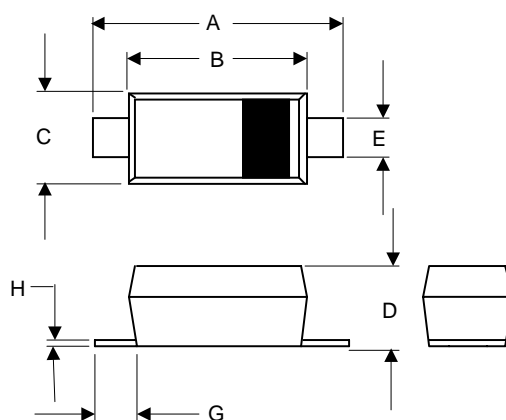
Symbol	Rating	Rating	Unit	
V_{RMS}	Maximum RMS Voltage	SM5817PL SM5818PL SM5819PL	14 21 28	V
	Repetitive Reverse Voltage	SM5817PL	20	V
		SM5818PL	30	
SM5819PL		40		
$I_{F(AV)}$	Rectified Current (Average) Half Wave Rectification with Resist. Load at $T_L=90^{\circ}C$	1.0	A	
I_{FSM}	Surge Forward Current at $T_L=70^{\circ}C, 8.3ms$	30	A	
$R_{\theta JA}$	Typical Thermal Resistance(Note2)	88	$^{\circ}C/W$	
$R_{\theta JC}$		43	$^{\circ}C/W$	
$R_{\theta JL}$		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	$^{\circ}C$	

Electrical Characteristics @ 25°C Unless Otherwise Specified

Symbol	Parameter	Min	Typ	Max	Units	
V_F	Forward Voltage (@1A dc)	SM5817PL	---	0.45	V	
		SM5818PL	---	0.56		
		SM5819PL	---	0.60		
I_R	Leakage Current	---	---	@ $T_A=25^{\circ}C$	0.1	mA
				@ $T_A=100^{\circ}C$	9.0	
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.

SOD-123FL



DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.140	.152	3.55	3.85	
B	.100	.122	2.55	3.10	
C	.055	.075	1.40	1.90	
D	.035	.053	0.90	1.35	
E	.020	.041	0.50	1.05	
G	.010	-----	0.25	-----	
H	-----	.010	-----	.25	

SUGGESTED SOLDER PAD LAYOUT

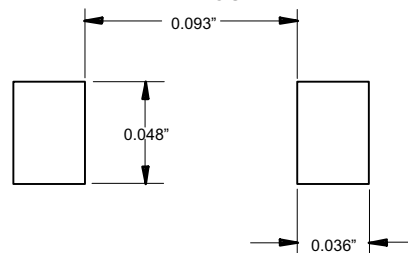


Fig. 1-TYPICAL FORWARD CURRENT

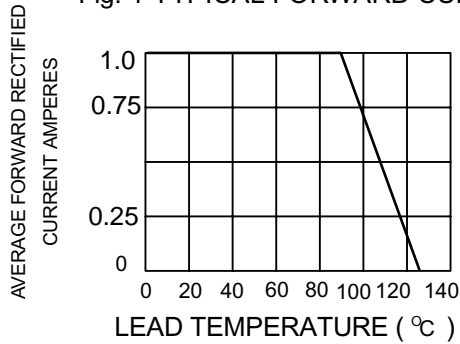


Fig. 2-TYPICAL FORWARD CHARACTERISTICS

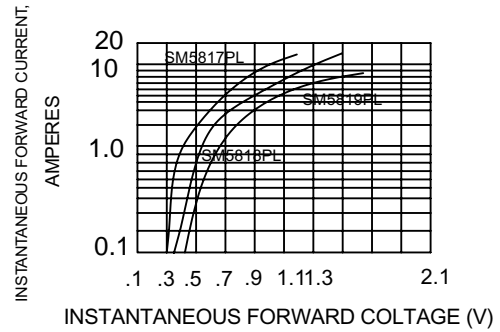


Fig. 3-TYPICAL REVERSE CHARACTERISTICS

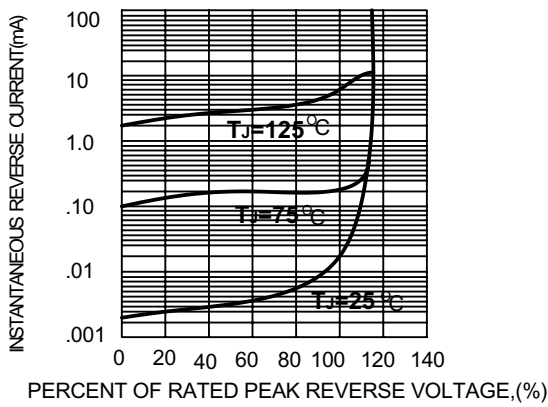


Fig. 4-FORWARD SURGE CURRENT

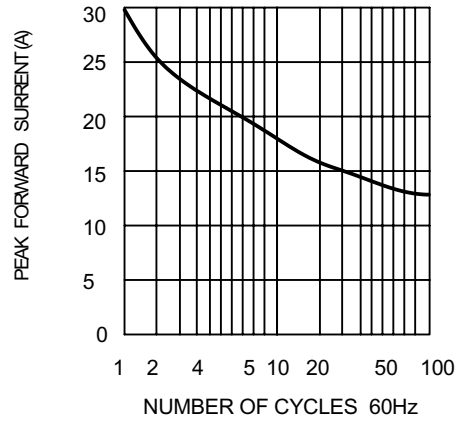
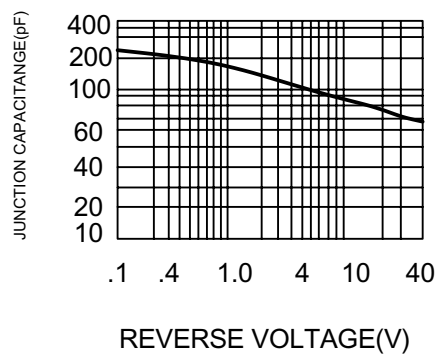


Fig. 5-TYPICAL JUNCTION CAPACITANCE





Micro Commercial Components

Ordering Information :

Device	Packing
Part Number-TP	Tape&Reel: 2.5Kpcs/Reel

Note : Adding "-HF" suffix for halogen free, eg. Part Number-TP-HF

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