

# 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

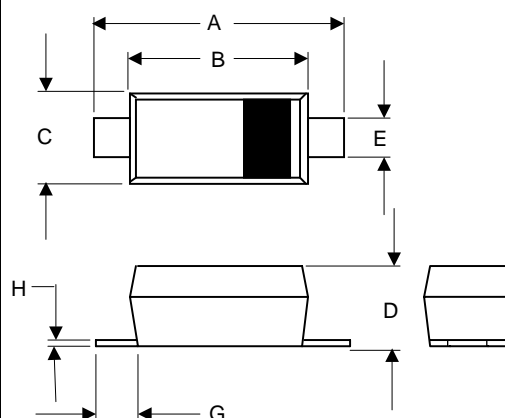
Symbol	Rating	Rating	Unit
$V_{RMS}$	Maximum RMS Voltage	SM5817PL SM5818PL SM5819PL	V
		14 21 28	
$V_{RRM}$	Repetitive Reverse Voltage	SM5817PL SM5818PL SM5819PL	V
		20 30 40	
$I_{F(AV)}$	Rectified Current (Average) Half Wave Rectification with Resist. Load at $T_L=90^{\circ}C$	1.0	A
$I_{FSM}$	Surge Forward Current at $T_L=70^{\circ}C, 8.3ms$	30	A
$R_{\theta JA}$ $R_{\theta JC}$ $R_{\theta JL}$	Typical Thermal Resistance(Note2)	88 43 30	$^{\circ}C/W$ $^{\circ}C/W$ $^{\circ}C/W$
$P_D$	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)	---	---	0.45	V
		---	---	0.56	
		---	---	0.60	
$I_R$	Leakage Current				mA
	@ $T_A=25^{\circ}C$	---	---	0.1	
	@ $T_A=100^{\circ}C$	---	---	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	.047	0.90	1.20	
E	.020	.041	0.50	1.05	
G	.010	----	0.25	----	
H	----	.010	----	.25	

### SUGGESTED SOLDER PAD LAYOUT

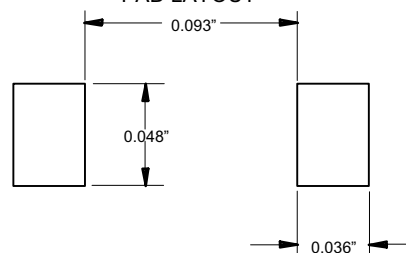


Fig. 1-TYPICAL FORWARD CURRENT

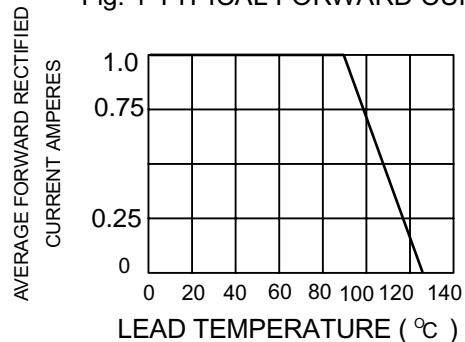


Fig. 2-TYPICAL FORWARD CHARACTERISTICS

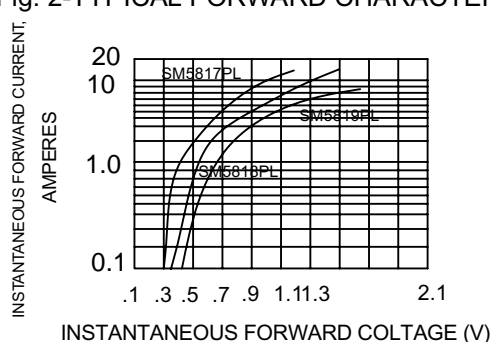


Fig. 3-TYPICAL REVERSE CHARACTERISTICS

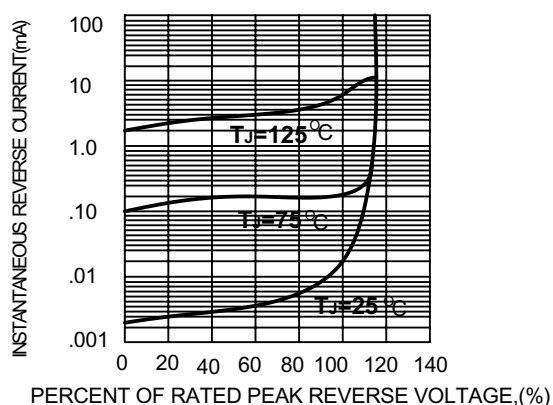


Fig. 4-FORWARD SURGE CURRENT

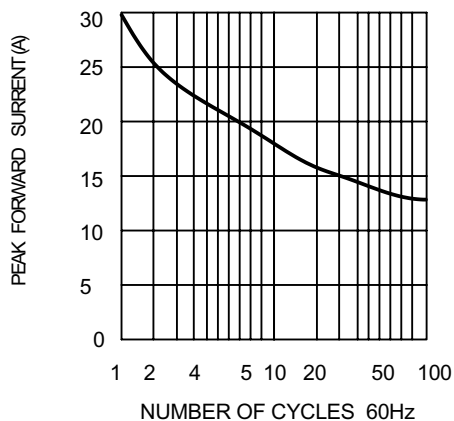
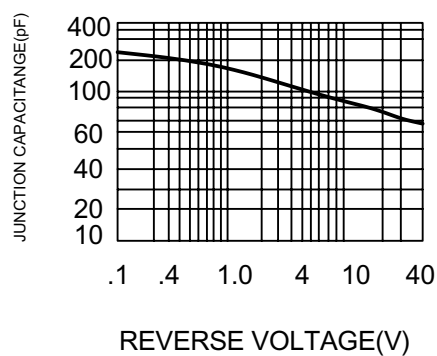


Fig. 5-TYPICAL JUNCTION CAPACITANCE





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## 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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