



**THE DATASHEET OF  
SM5817PL-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

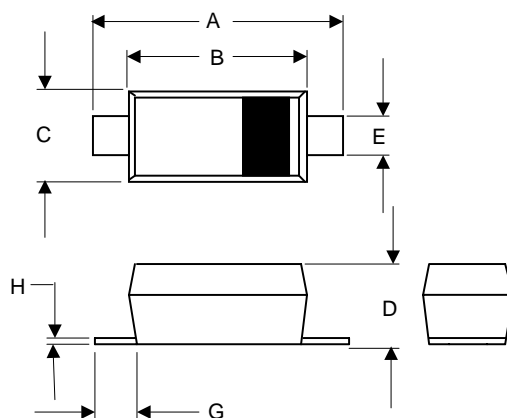
Symbol	Rating	Rating	Unit		
V <sub>RMS</sub>	Maximum RMS Voltage	SM5817PL SM5818PL SM5819PL	14 21 28	V	
	V <sub>RRM</sub>	Repetitive Reverse Voltage	SM5817PL SM5818PL SM5819PL	20 30 40	V
		I <sub>F(AV)</sub>	Rectified Current (Average) Half Wave Rectification with Resist. Load at T <sub>L</sub> =90°C	1.0	A
I <sub>FSM</sub>			Surge Forward Current at ,T <sub>L</sub> =70°C,8.3ms	30	A
R <sub>thJA</sub>	Typical Thermal Resistance(Note2)		88	°C/W	
R <sub>thJC</sub>		43	°C/W		
R <sub>thJL</sub>		30	°C/W		
P <sub>D</sub>	Power Dissipation		1.14	W	
T <sub>J</sub>	Junction Temperature		-65 to +125	°C	
T <sub>STG</sub>	Storage Temperature		-65 to +125	°C	

### Electrical Characteristics @ 25°C Unless Otherwise Specified

Symbol	Parameter	Min	Typ	Max	Units	
V <sub>F</sub>	Forward Voltage (@1A dc)	SM5817PL	---	---	0.45	V
		SM5818PL	---	---	0.56	
		SM5819PL	---	---	0.60	
I <sub>R</sub>	Leakage Current					
		@T <sub>A</sub> =25°C	---	---	0.1	mA
		@T <sub>A</sub> =100°C	---	---	9.0	mA
C <sub>J</sub>	Typical Junction Capacitance @f=1.0MHz, V <sub>r</sub> =4V	---	110	---	pF	

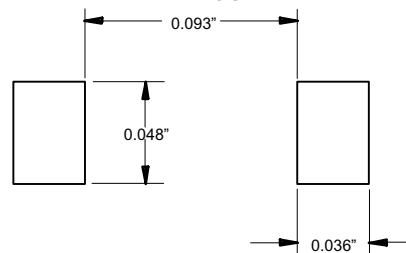
Note: 1. High Temperature Solder Exemptions Applied, see EU Directive Annex 7.  
2. Thermal Resistance : PC Board Mounted on 0.2\*0.2"(5\*5mm) copper pad area.

### 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



# SM5817PL-SM5819PL



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Fig. 1-TYPICAL FORWARD CURRENT

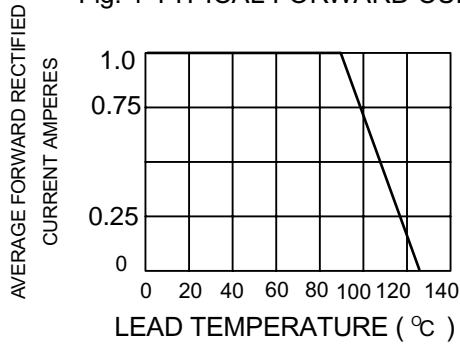


Fig. 2-TYPICAL FORWARD CHARACTERISTICS

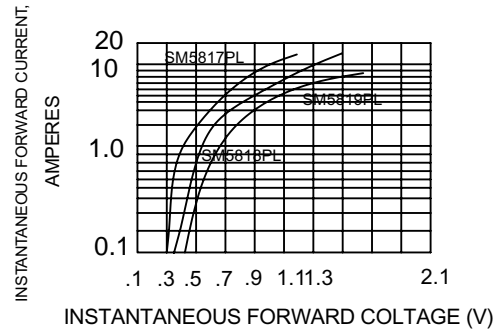


Fig. 3-TYPICAL REVERSE CHARACTERISTICS

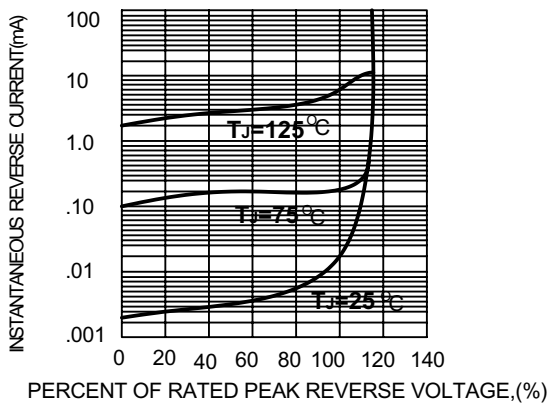


Fig. 4-FORWARD SURGE CURRENT

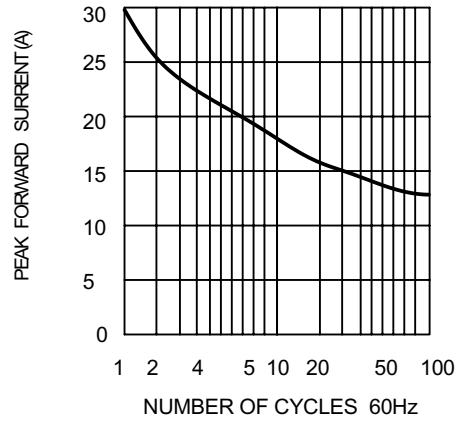
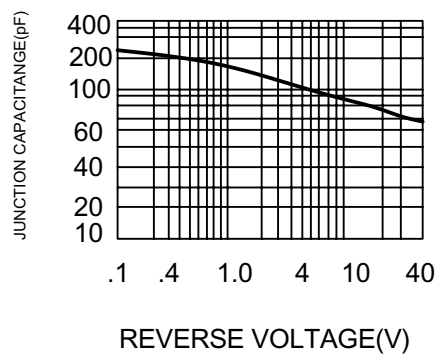


Fig. 5-TYPICAL JUNCTION CAPACITANCE





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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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