

# B5817PL THRU B5819PL

## Schottky Barrier Diodes



### 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: B5817PL---K2; B5818PL---K3 ; B5819PL---K4

### Maximum Ratings

Symbol	Rating	Rating	Unit
$V_{RMS}$	Maximum RMS Voltage	B5817PL	14
		B5818PL	21
		B5819PL	28
$V_{RRM}$	Repetitive Reverse Voltage	B5817PL	20
		B5818PL	30
		B5819PL	40
$I_{F(AV)}$	Rectified Current (Average) Half Wave Rectification with Resist. Load at $T_L=90^\circ\text{C}$	1.0	A
$I_{FSM}$	Surge Forward Current at $T_L=70^\circ\text{C}, 8.3\text{ms}$	30	A
$R_{\theta JA}$ $R_{\theta JC}$ $R_{\theta JL}$	Typical Thermal Resistance(Note2)		88
			43
			30
$P_D$	Power Dissipation	1.14	W
$T_J$	Junction Temperature	-65 to +125	$^\circ\text{C}$
$T_{STG}$	Storage Temperature	-65 to +125	$^\circ\text{C}$

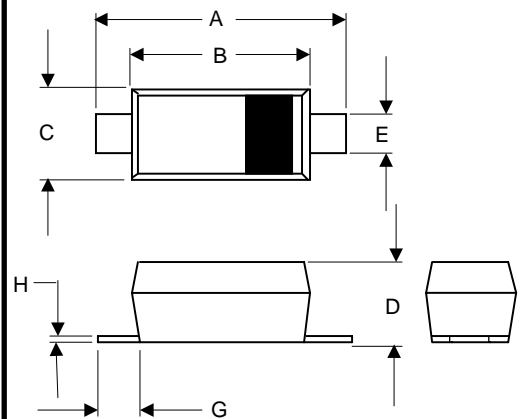
### Electrical Characteristics @ 25°C Unless Otherwise Specified

Symbol	Parameter	Min	Typ	Max	Units
$V_F$	Forward Voltage (@1A dc)	B5817PL	---	0.45	V
		B5818PL	---	0.56	
		B5819PL	---	0.60	
$I_R$	Leakage Current				mA
		@ $T_A=25^\circ\text{C}$	---	0.1	
		@ $T_A=100^\circ\text{C}$	---	9.0	
$C_J$	Typical Junction Capacitance @ $f=1.0\text{MHz}, V_r=4\text{V}$	---	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.

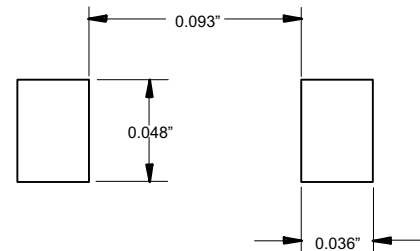
## Schottky Barrier Diodes 20 to 40 Volts

### 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



# B5817PL-B5819PL

Fig. 1-TYPICAL FORWARD CURRENT

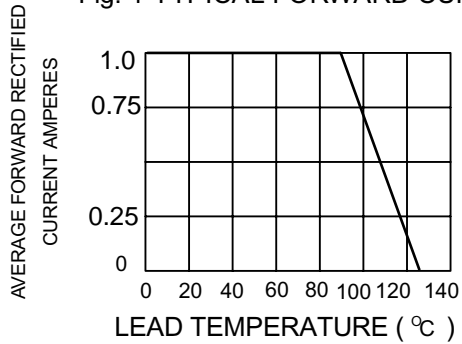


Fig. 2-TYPICAL FORWARD CHARACTERISTICS

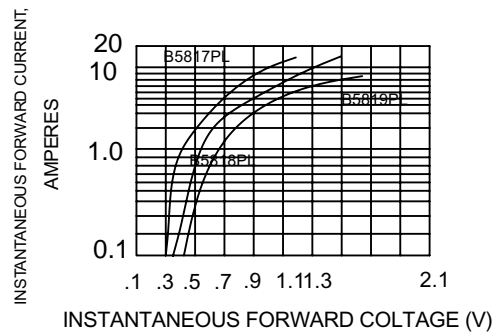


Fig. 3-TYPICAL REVERSE CHARACTERISTICS

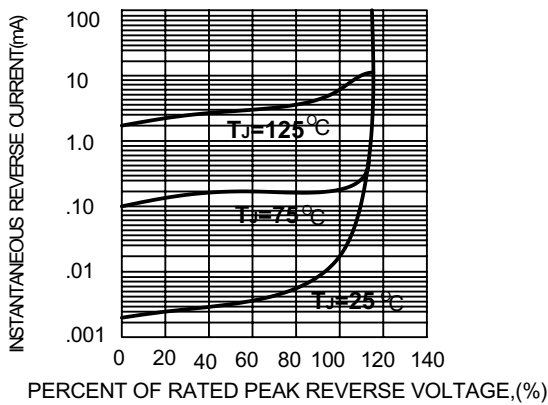


Fig. 4-FORWARD SURGE CURRENT

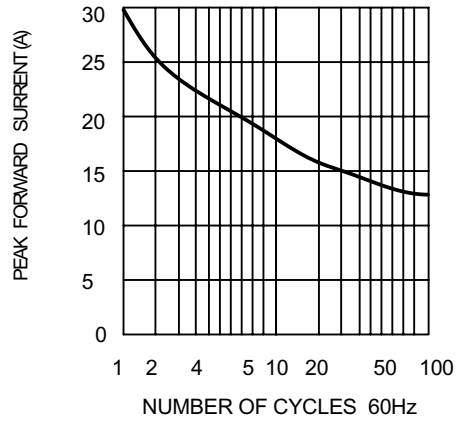


Fig. 5-TYPICAL JUNCTION CAPACITANCE

