

Micro Commercial Components



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SM5817PL THRU SM5819PL

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)

Schottky Barrier Diodes 20 to 40 Volts

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
	Maximum RMS Voltage	SM5817PL	14	
V_{RMS}		SM5818PL	21	V
		SM5819PL	28	
	Repetitive Reverse Voltage	SM5817PL	20	
V_{RRM}	_	SM5818PL	30	V
		SM5819PL	40	
Rectified Current (Average) Half Wave				
$I_{F(AV)}$	Rectification with Resist. Loa	d at	1.0	Α
	TL=90°C			
I _{FSM}	Surge Forward Current at ,TL=70°C,8.3ms		30	Α
RthJA			88	%\W
RthJC	Typical Thermal Resistance(Note2)		43	°C/W
RthJL	, , , , , , , , , , , , , , , , , , ,	,	30	%C\W
P_{D}	Power Dissipation		1.14	W
TJ	Junction Temperature		-65 to +125	$_{\mathbb{C}}$
T _{STG}	Storage Temperature		-65 to +125	$_{\mathbb{C}}$

Electrical Characteristics @ 25°C Unless Otherwise Specified

Symbol	Parameter		Min	Тур	Max	Units
V_{F}	Forward Voltage	SM5817PL		0.45		V
	(@1A dc)	SM5818PL		0.56		V
		SM5819PL		0.60		
I _R	Leakage Current					
		@Ta=25℃		0.1		mA
		@Ta=100℃		9.0		mA
Cj	Typical Junction Capacitance @f=1.0MHz,Vr=4V			110		pF

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

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

SOD-123FL A B C E DIMENSIONS DIM INCHES MM NOTE MIN MAX MIN MAX A .140 .152 3.55 3.85

В

С

D

Ε

G

.100

.055

.037

.020

.010

.112

.071

.053

.039

2.55

1.40

0.95

0.50

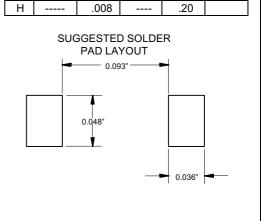
0.25

2.85

1.80

1.35

1.00



SM5817PL-SM5819PL



Fig. 1-TYPICAL FORWARD CURRENT

1.0

0.75

0.20

0 20 40 60 80 100 120 140

LEAD TEMPERATURE (°C)

Fig. 3-TYPICAL REVERSE CHARACTERISTICS

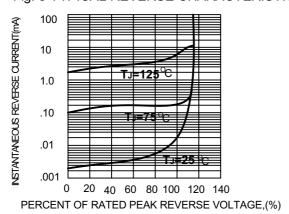


Fig. 2-TYPICAL FORWARD CHARACTERISTICS

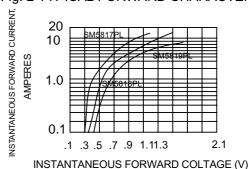


Fig. 4-FORWARD SURGE CURRENT

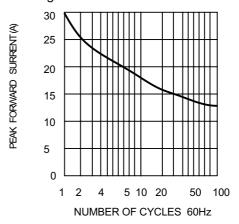
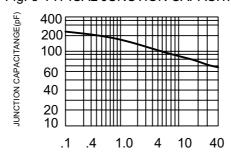


Fig. 5-TYPICAL JUNCTION CAPACITANCE



REVERSE VOLTAGE(V)



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Ordering Information:

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

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