

Shottky Barrier Diodes

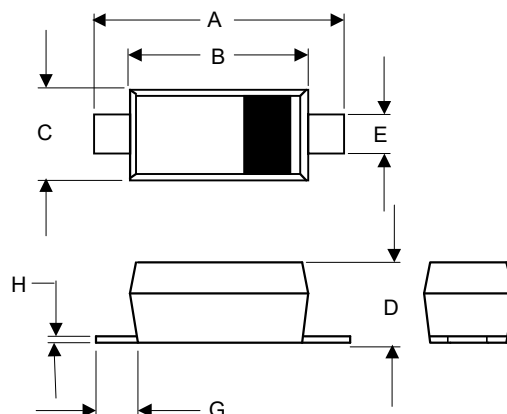
Features:

- 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:

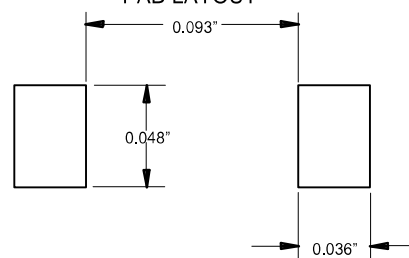
- Packaging: SOD-123FL
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1
- Marking Code: B120LW-FL---K2 B130LW-FL---K3 B140LW-FL---K4

SOD-123FL



DIMENSIONS					
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



Maximum Ratings

Symbol	Rating	Rating	Unit
V_{RMS}	Maximum RMS Voltage	B120LW-FL	14
		B130LW-FL	21
		B140LW-FL	28
V_{RRM}	Repetitive Reverse Voltage	B120LW-FL	20
		B130LW-FL	30
		B140LW-FL	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 $T_L=70^{\circ}C, 8.3ms$	40	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 +150	$^{\circ}C$
T_{STG}	Storage Temperature	-65 to +150	$^{\circ}C$

Electrical Characteristics @25°C unless otherwise specified.

Symbol	Parameter	Min	Typ	Max	Units
V_F	Forward Voltage (@1A dc)	B120LW-FL	---	0.45	---
		B130LW-FL	---	0.50	---
		B140LW-FL	---	0.55	---
I_R	Leakage Current	@ $T_A=25^{\circ}C$	---	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.

Fig. 1-TYPICAL FORWARD CURRENT

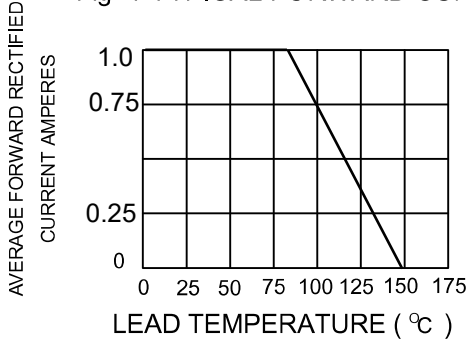


Fig. 2-TYPICAL FORWARD CHARACTERISTICS

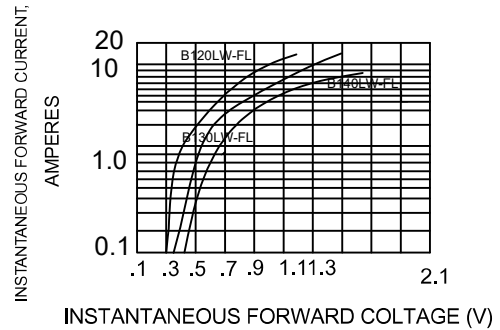


Fig. 3-TYPICAL REVERSE CHARACTERISTICS

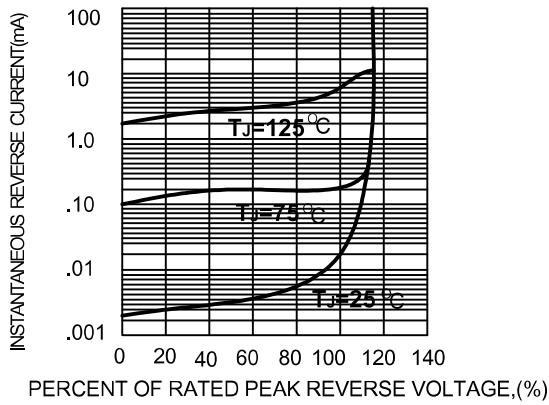


Fig. 4-FORWARD SURGE CURRENT

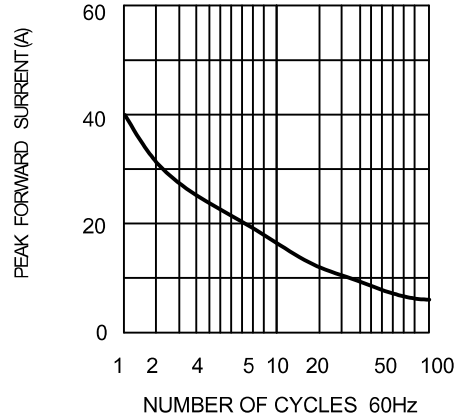


Fig. 5-TYPICAL JUNCTION CAPACITANCE

