

K21W SCHOTTKY BARRIER RECTIFIER



Features

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- For use in low voltage high frequency inverters, free wheeling, and polarity protection applications
- Guardring for over voltage protection
- High temperature soldering guaranteed: 260° C/10 seconds at terminals
- These Devices are Pb-Free and are RoHS Compliant
- All SMC parts are traceable to the wafer lot
- Additional testing can be offered upon request

Circuit Diagram



Mechanical Data

- Case: SOD123FL molded plastic over sky die
- Terminals: Tin Plated, solderable per MIL-STD-750, Method 2026
- Polarity: Color band denotes cathode end
- Mounting Position: Any
- Weight: 0.02g

Maximum Ratings and Electrical Characteristics @ $T_A=25^\circ\text{C}$ unless otherwise specified

Characteristic	Symbol	Value	Units
Peak Repetitive Reverse Voltage Maximum RMS Voltage Maximum DC Blocking Voltage	V_{RRM} V_{RWM} V_R	10	V
Maximum Average Rectified Forward Current at $T_A = 55^\circ\text{C}$	$I_{F(AV)}$	2	A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	50	A
Forward Voltage @ $I_F = 1\text{A}, T_A = 25^\circ\text{C}$ @ $I_F = 2\text{A}, T_A = 25^\circ\text{C}$	V_{FM}	0.38 0.42	V
Peak Reverse Current @ $V_R = 10\text{V}, T_A = 25^\circ\text{C}$	I_{RM}	3	mA
Maximum Junction Capacitance (Note 1)	C_j	500	pF
Typical thermal resistance (Note 2)	$R_{\theta JA}$	180	$^\circ\text{C}/\text{W}$
Operating Junction Temperature Range	T_J	-55 to +125	$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-55 to +150	$^\circ\text{C}$
Case Style	SOD-123FL		

Note 1. Measured at 1MHz and applied reverse voltage of 5.0V D.C.
2. PCB mounted on 0.2 X 0.2" (5.0 X 5.0 mm) copper pad areas.

Ratings and Characteristics Curves

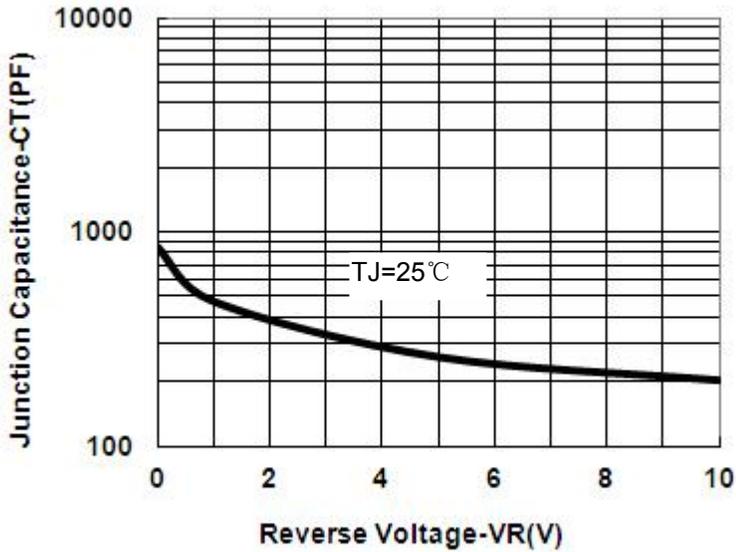


Fig.1-Typical Junction Capacitance

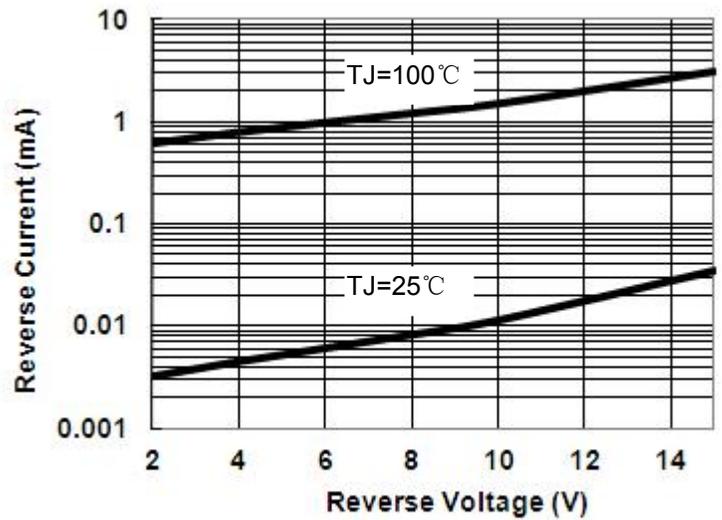


Fig.2-Typical Reverse Characteristics

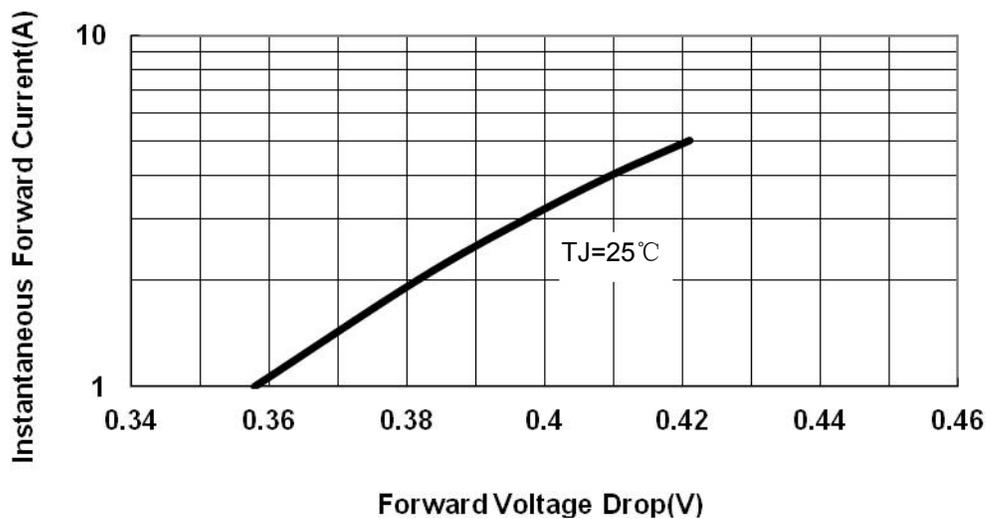
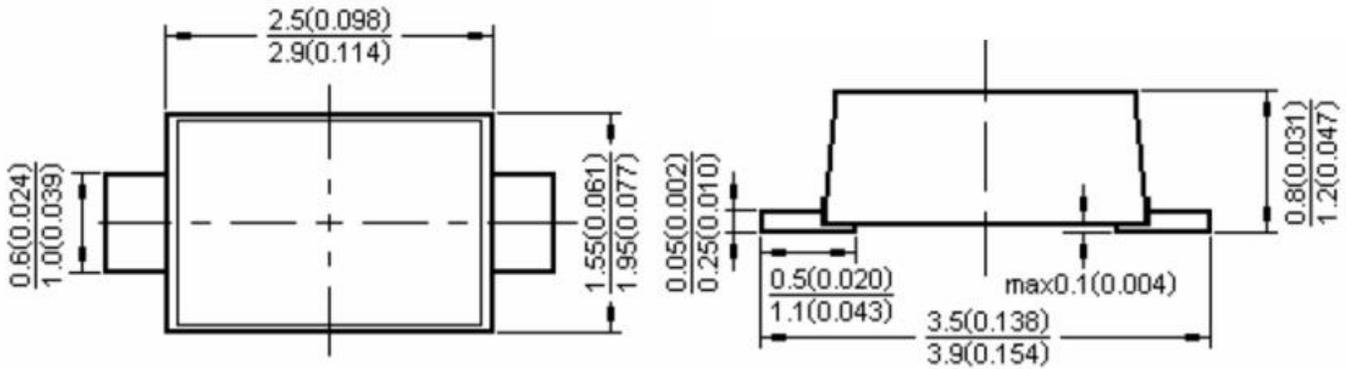


Fig.3-Typical Forward Voltage Drop Characteristics

Mechanical Dimensions SOD-123FL(Millimeters)

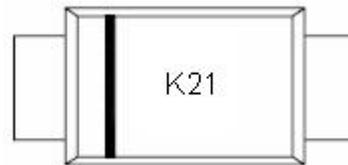


Ordering Information

Device	Package	Shipping
K21W	SOD-123FL	5000pcs / reel

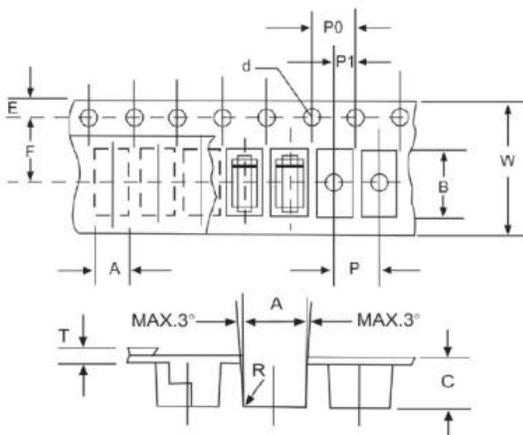
For information on tape and reel specifications, including part orientation and tape sizes, please refer to our tape and reel packaging specification.

Marking Diagram



K21 = Marking Code

Carrier Tape Specification SOD-123FL



SYMBOL	Millimeters	
	Min.	Max.
A	1.95	2.15
B	3.85	4.05
C	1.35	1.55
d	1.50	1.60
E	1.65	1.85
F	3.40	3.60
P	3.90	4.10
P0	3.90	4.10
P1	1.90	2.10
W	7.90	8.30

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