Technical Data
Data Sheet N1824, Rev. A

RoHS HF

DSS34 SCHOTTKY BARRIER RECTIFIER

SOD-123FL

Features

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Metal silicon junction, majority carrier conduction
- For surface mount applications
- Low power loss, high efficiency
- High current capability, Low forward voltage drop
- Low profile package
- Built-in strain relief, ideal for automated placement
- For use in low voltage, high frequency inverters, free wheeling, and polarity applications
- High temperature soldering guaranteed: 260° C/10 seconds at terminals
- This is a Halogen Free Device
- All SMC parts are traceable to the wafer lot
- Additional testing can be offered upon request

Circuit Diagram

Mechanical Data

- Case: SOD-123FL, molded plastic
- Terminals: Plated leads, solderable per MIL-STD-750, Method 2026
- Polarity: Color band dentes cathode end
- Mounting Position: Any

Maximum Ratings and Electrical Characteristics @T_A=25°C unless otherwise specified

Characteristic	Symbol	DSS34	Units
Marking code		S34	
Maximum Repetitive Peak Reverse Voltage Maximum DC Blocking Voltage	V_{RRM} V_{DC}	40	V
Maximum RMS voltage	V_{RMS}	28	V
Maximum Average Forward Rectified Current (See fig.1)	$I_{F(AV)}$	3.0	A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	80.0	A
Max Instantaneous Forward Voltage at 3.0A (Note 1)	V_F	0.50	V
Peak Reverse Current (Note 1) @T_A = 25°C At Rated DC Blocking Voltage (Note 1) @T_A = 100°C	I_{RM}	0.2 20	mA
Typical Junction Capacitance(Note 3)	C_J	250	pF
Typical Thermal Resistance(Note 2)	$R_{\theta JA}$ $R_{\theta JL}$	55 17	°C/W
Operating Temperature Range	T_J	-65 to +150	°C
Storage Temperature Range	T_{STG}	-65 to +150	°C

Note: 1. Pulse test: 300 us pulse width, 1% duty cycle.
2. PCB mounted on 0.55 X 0.55" (14 X 14 mm) copper pad areas.
3. Measured at 1MHz and applied reverse voltage of 4V D.C

Ratings and Characteristics Curves

FIG.1-FORWARD CURRENT DERATING CURVE

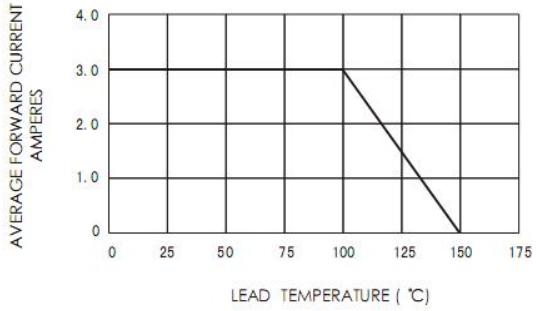


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

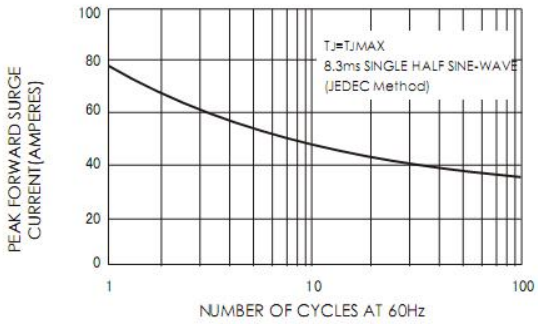


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

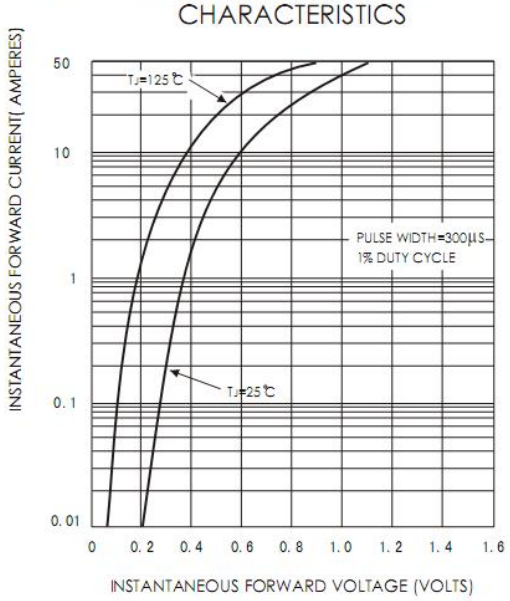


FIG.4-TYPICAL REVERSE CHARACTERISTICS

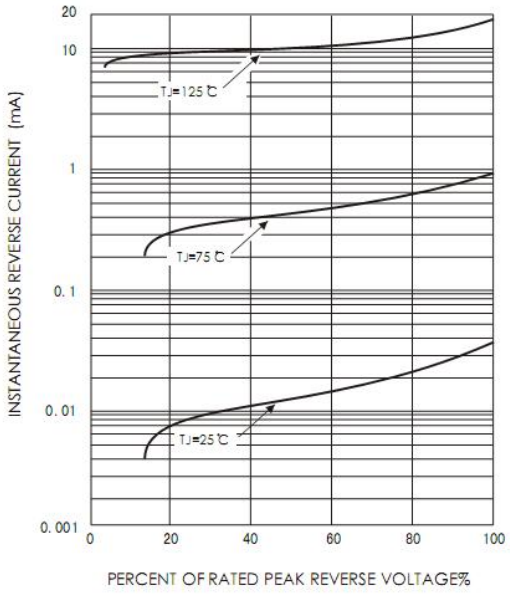


FIG.5-TYPICAL JUNCTION CAPACITANCE

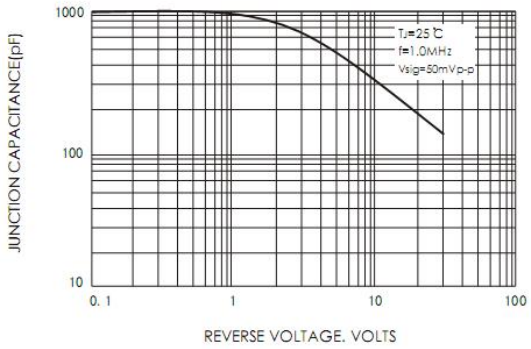
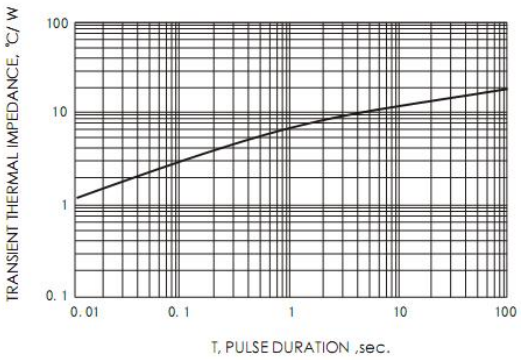


FIG.6-TYPICAL TRANSIENT THERMAL IMPEDANCE



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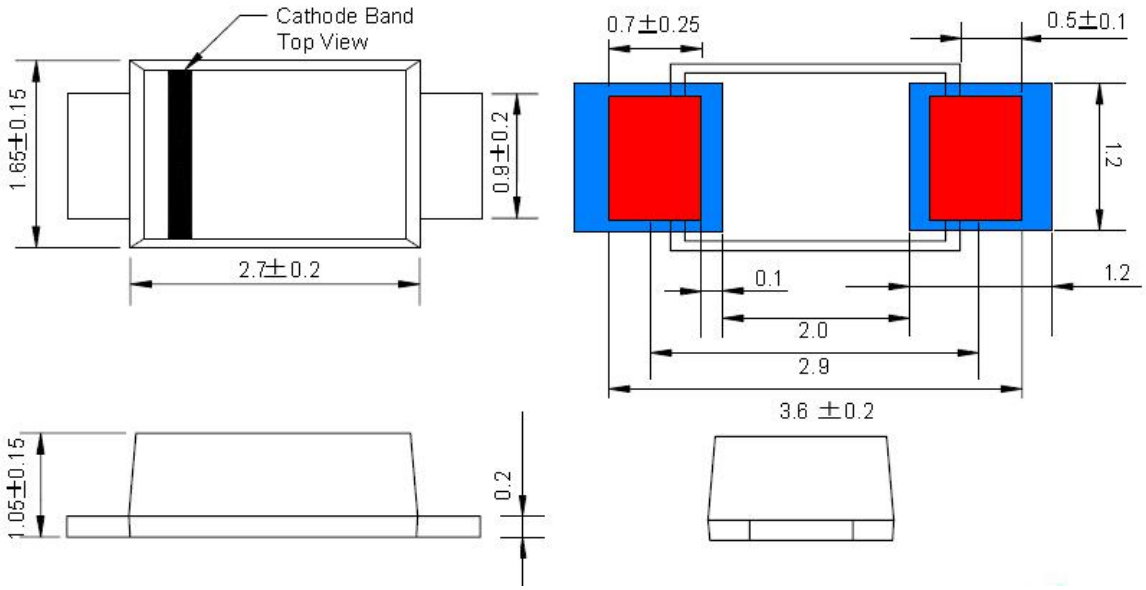
Mechanical Dimensions SOD-123FL(Millimeters)



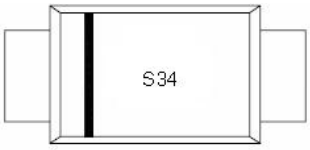
Note: Blue area is suggested pad layout and red area is package terminals.

Ordering Information

Device	Package	Shipping
DSS34	SOD-123FL	3000pcs / reel
DSS34TR	SOD-123FL	3000pcs / reel

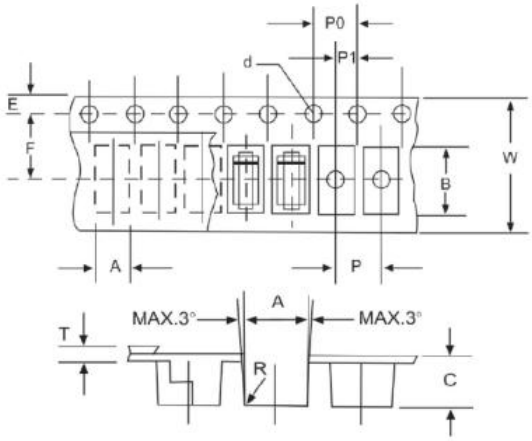
For information on tape and reel specifications, including part orientation and tape sizes, please refer to our tape and reel packaging specification.

Marking Diagram



S34 = 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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