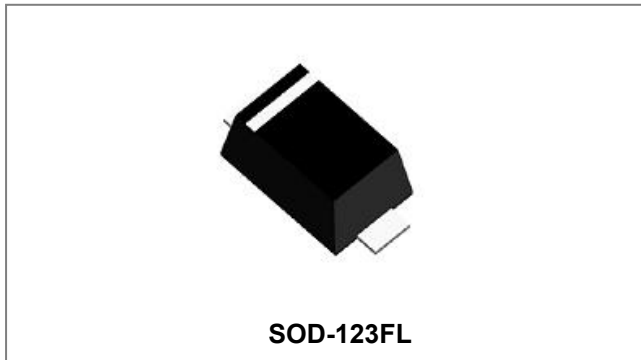


## DSS22 THRU DSS220

### SINGLE PHASE 2.0AMP SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER



#### Features

- The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- Metal silicon junction, majority carrier conduction
- Low power loss, high efficiency
- High temperature soldering guaranteed: 260/10° C seconds, 0.375"(9.5mm) lead length, 5 lbs. (2.3kg) tension
- 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 dented cathode end
- Mounting Position: Any

#### Maximum Ratings and Electrical Characteristics @T<sub>A</sub>=25°C unless otherwise specified

Characteristic	Symbol	DSS 22	DSS 23	DSS 24	DSS 25	DSS 26	DSS 28	DSS 210	DSS 215	DSS 220	Units	
	Marking Code	D22	D23	D24	D25	D26	D28	D210	D215	D220		
Peak Repetitive Reverse Voltage	V <sub>RRM</sub>	20	30	40	50	60	80	100	150	200	V	
DC Blocking Voltage	V <sub>DC</sub>	20	30	40	50	60	80	100	150	200	V	
RMS Reverse Voltage	V <sub>RMS</sub>	14	21	28	35	42	56	70	105	140	V	
Average Rectified Output Current at T <sub>L</sub> =90°C	I <sub>F(AV)</sub>	2.0									A	
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on Rated load(JEDEC Method)	I <sub>FSM</sub>	40									A	
Forward Voltage per element @I <sub>F</sub> =2.0A	V <sub>F</sub>	0.55			0.70		0.85		0.92		V	
Peak Reverse Current T <sub>A</sub> =25 °C at rated DC blocking voltage T <sub>A</sub> =100 °C	I <sub>R</sub>	0.5									mA	
		10					5					
Typical Junction Capacitance (Note 1)	C <sub>J</sub>	80						40				pF
Typical Thermal Resistance Junction to Ambient (Note 2)	R <sub>θJA</sub>	75									°C/W	
Junction and Storage Temperature Range	T <sub>J</sub>	-55 to +150									°C	
Junction and Storage Temperature Range	T <sub>STG</sub>	-55 to +150									°C	

Note: 1. Measured at 1MHz and applied reverse voltage of 4V 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- FORWARD CURRENT DERATING CURVE

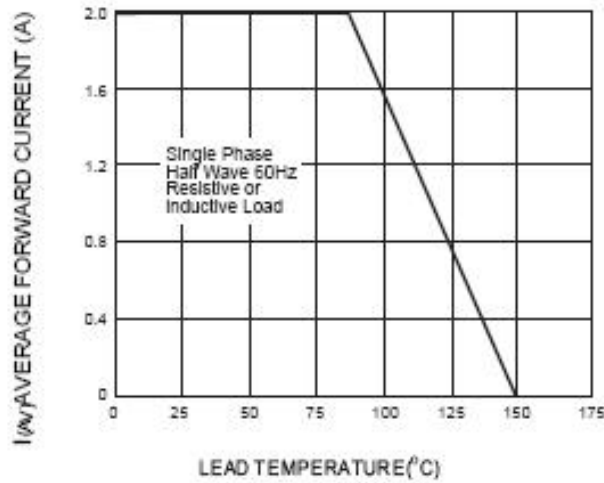


FIG. 2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

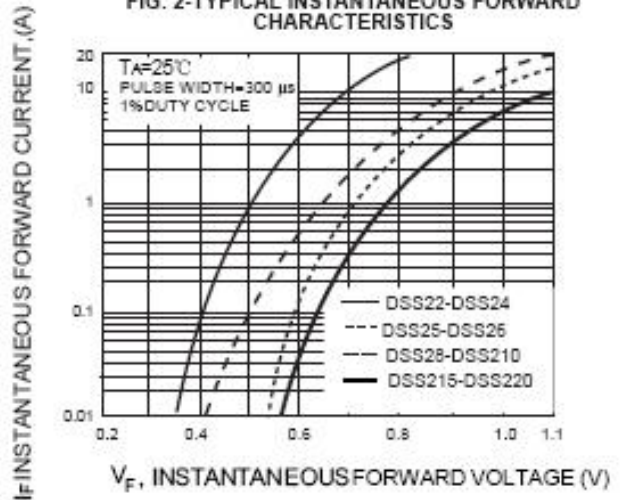


FIG. 3-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

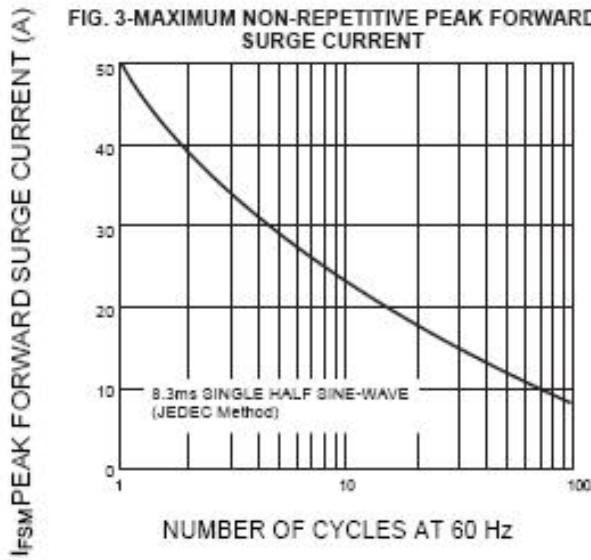
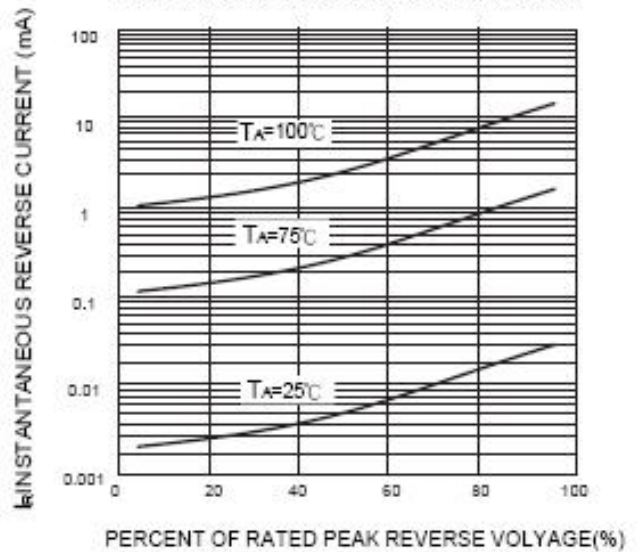
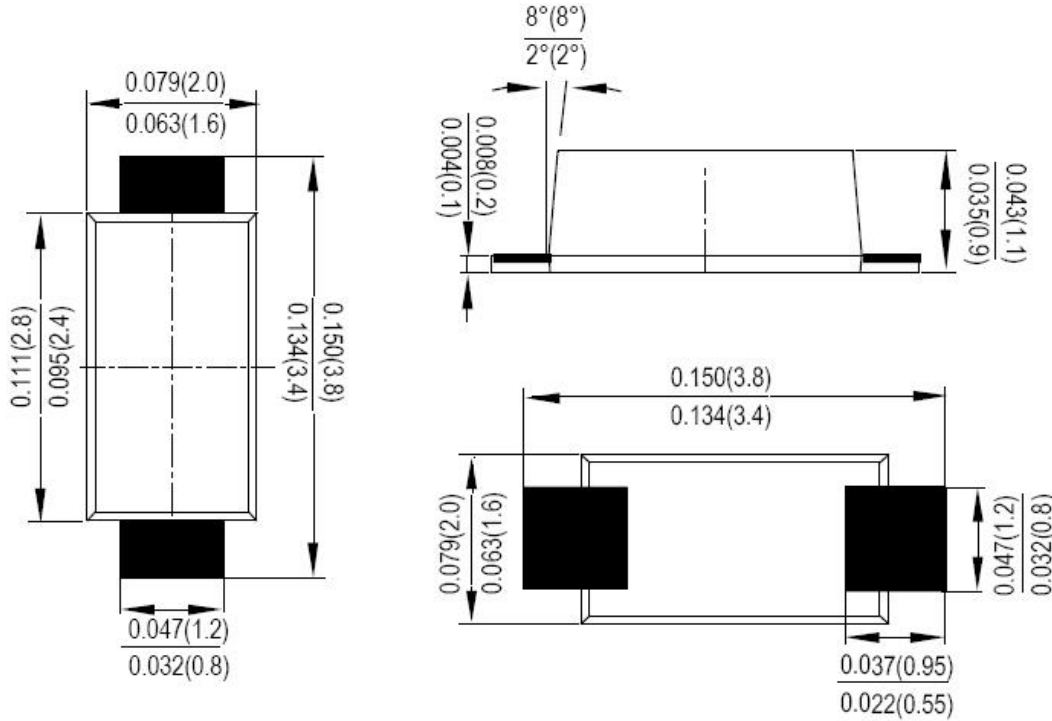


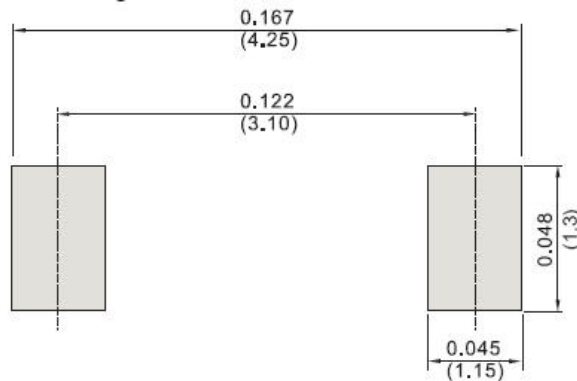
FIG. 4-TYPICAL REVERSE CHARACTERISTICS



**Mechanical Dimensions SOD-123FL(Millimeters)**



**Recommended Soldering Pattern (mm)**

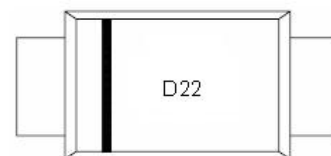


**Ordering Information**

Device	Package	Shipping
DSS22 THRU DSS220	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.

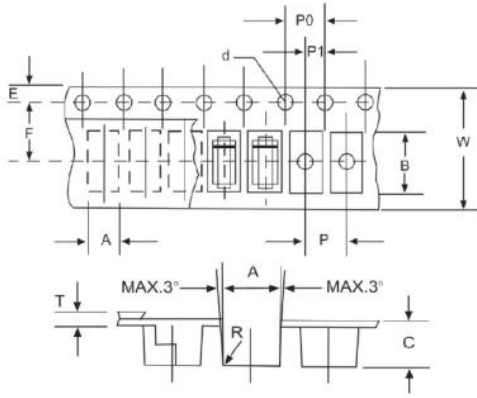
**Marking Diagram**



D22 = Marking Code

- China - Germany - Korea - Singapore - United States •
- <http://www.smc-diodes.com> - [sales@smc-diodes.com](mailto:sales@smc-diodes.com) •

**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



DSS22  
THRU  
DSS220

Technical Data  
Data Sheet N1694, Rev. C



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