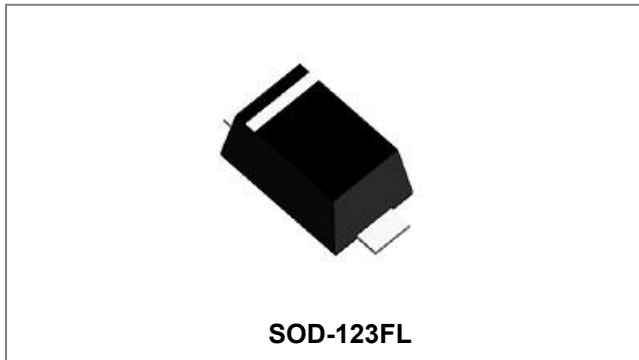


## DSS22 THRU DSS210

### 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 Pb – 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

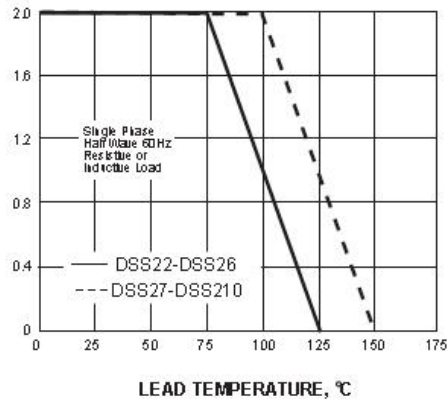
Characteristic	Symbol	DSS 22	DSS 23	DSS 24	DSS 25	DSS 26	DSS 27	DSS 28	DSS 29	DSS 210	Units	
	Code	D22	D23	D24	D25	D26	D27	D28	D29	D210		
Peak Repetitive Reverse Voltage DC Blocking Voltage	V <sub>RRM</sub>	20	30	40	50	60	70	80	90	100	V	
	V <sub>DC</sub>	20	30	40	50	60	70	80	90	100	V	
RMS Reverse Voltage	V <sub>RMS</sub>	14	21	28	35	42	49	56	63	70	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			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						5			mA	
		10										
Typical Junction Capacitance (Note 1)	C <sub>J</sub>	220			180						pF	
Typical Thermal Resistance Junction to Ambient (Note 2)	R <sub>θJA</sub>	180									°C/W	
Junction and Storage Temperature Range	T <sub>J</sub>	-55 to +125					-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**

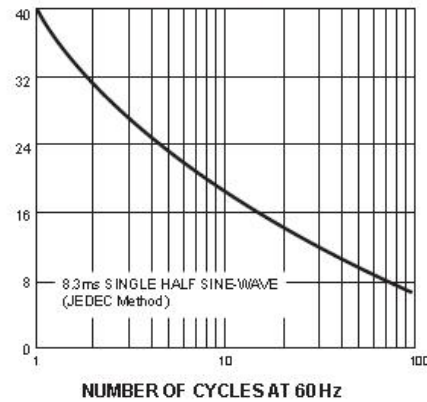
AVERAGE FORWARD RECTIFIED CURRENT, AMPERES

FIG. 1-FORWARD CURRENT DERATING CURVE



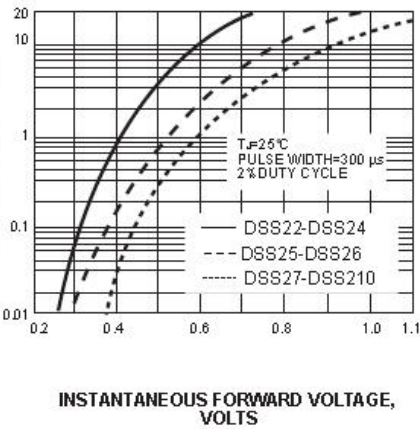
PEAK FORWARD SURGE CURRENT, AMPERES

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



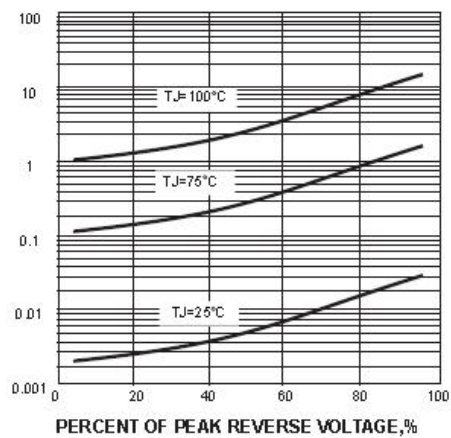
INSTANTANEOUS FORWARD CURRENT, AMPERES

FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS



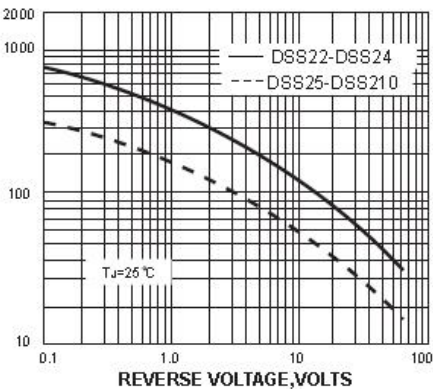
INSTANTANEOUS REVERSE CURRENT, MILLIAMPERES

FIG. 4-TYPICAL REVERSE CHARACTERISTICS

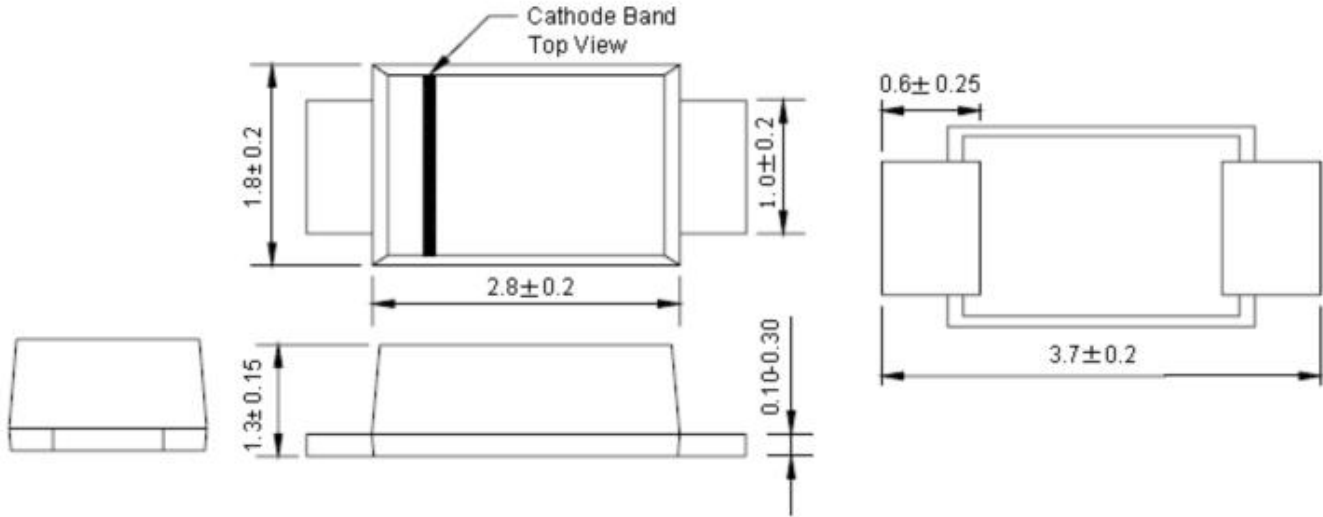


JUNCTION CAPACITANCE, pF

FIG. 5-TYPICAL JUNCTION CAPACITANCE



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

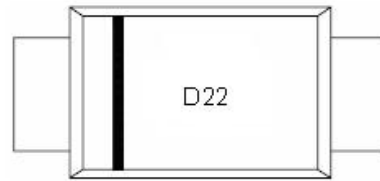


**Ordering Information**

Device	Package	Shipping
DSS22 THRU DSS210	SOD-123FL (Pb-Free)	3000pcs / reel

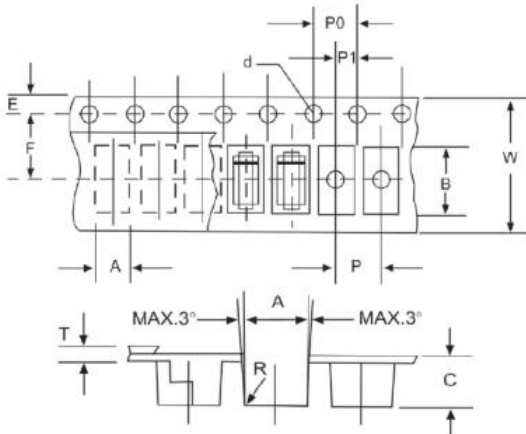
For information on tape and reel specifications, including part orientation and tape sizes, please refer to our tape and reel packaging specification.

**Marking Diagram**



D22 = Marking Code

**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

**Technical Data  
Data Sheet N1694, Rev. A**



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