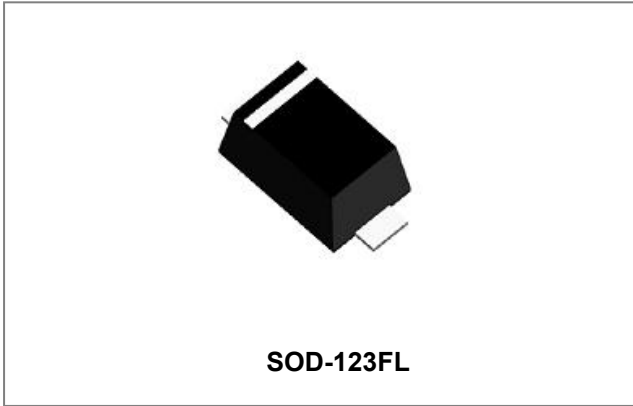


DSS32 THRU DSS320

SINGLE PHASE 3.0AMP 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
- Terminals finish: 100% Pure Tin
- 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	DSS 32	DSS 33	DSS 35	DSS 36	DSS 38	DSS 310	DSS 315	DSS 320	Units
	Marking Code	D32	D33	D35	D36	D38	D310	D315	D320	
Peak Repetitive Reverse Voltage	V _{RRM}	20	30	50	60	80	100	150	200	V
DC Blocking Voltage	V _{DC}	20	30	50	60	80	100	150	200	V
RMS Reverse Voltage	V _{RMS}	14	21	35	42	56	70	105	140	V
Average Rectified Output Current at T _L =90°C	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								A
Forward Voltage per element @I _F =3.0A	V _F	0.55	0.70		0.85		0.92		V	
	Typ.	0.52	0.65		0.80		0.85			
Peak Reverse Current T _A =25 °C at rated DC blocking voltage T _A =100 °C	I _R	0.1			0.05				mA	
		10			5					
Typical Junction Capacitance (Note 1)	C _J	110				70				pF
Typical Thermal Resistance Junction to Ambient (Note 2)	R _{θJA}	75								°C/W
Junction and Storage Temperature Range	T _J	-55 to +150								°C
Junction and Storage Temperature Range	T _{STG}	-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.

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

Ratings and Characteristics Curves

FIG. 1- FORWARD CURRENT DERATING CURVE

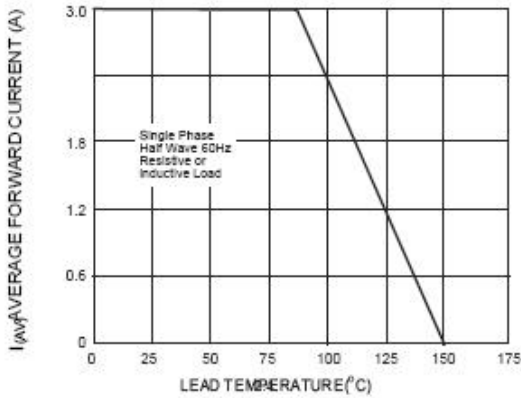


FIG. 2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

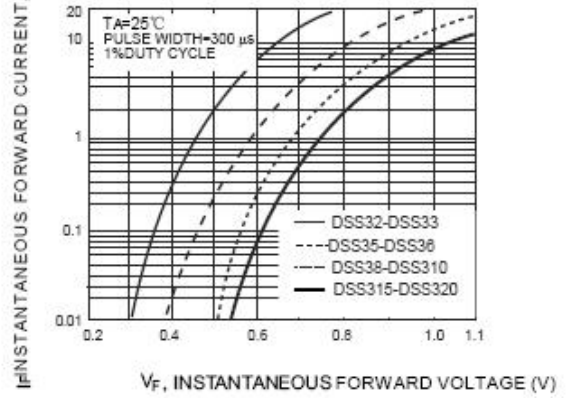


FIG. 3-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

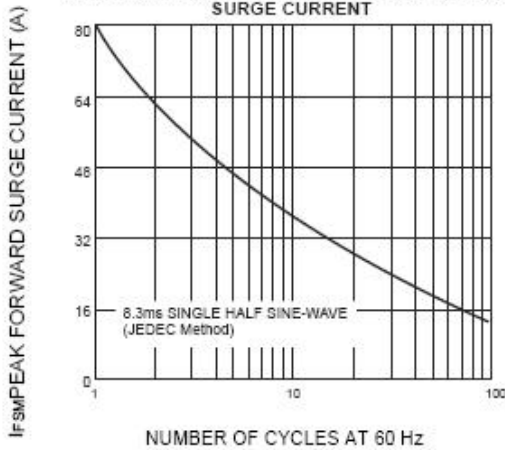


FIG. 4-TYPICAL REVERSE CHARACTERISTICS

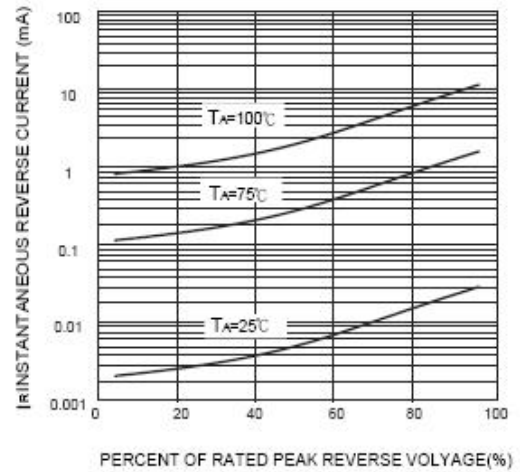
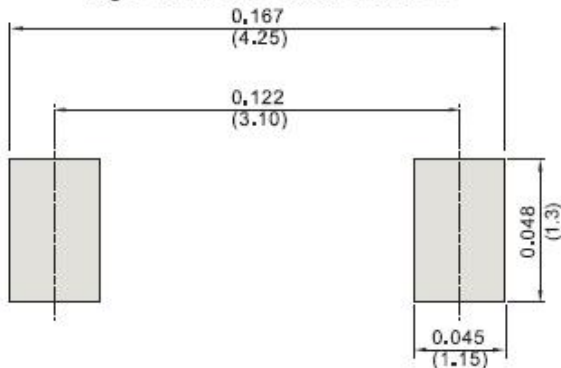
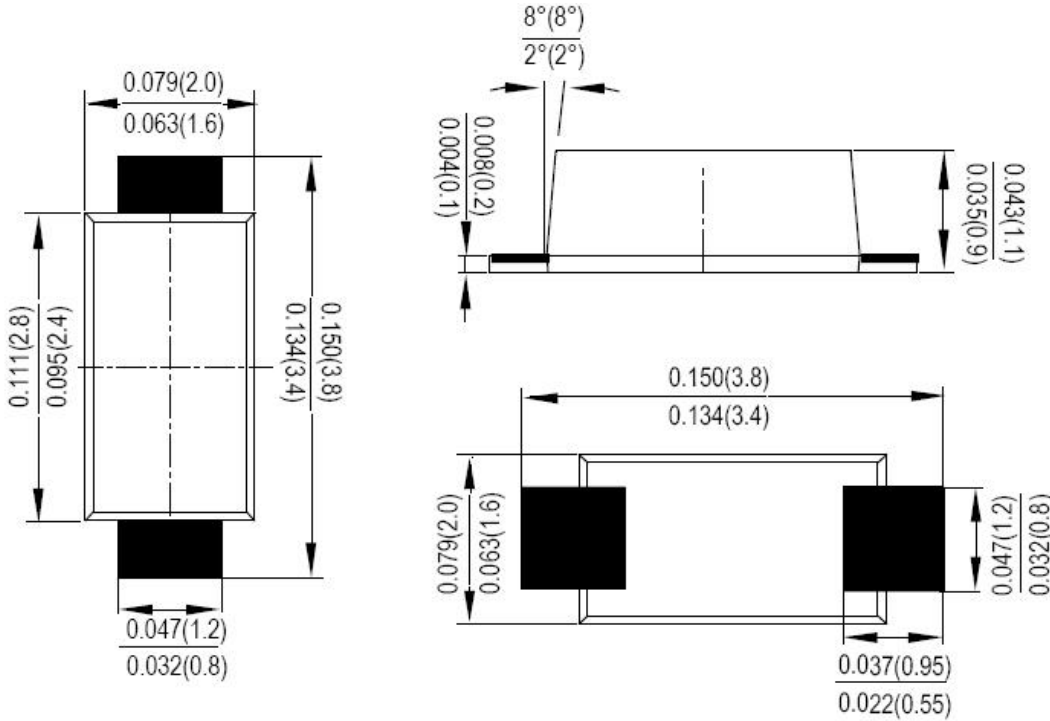


Fig.5 TYPICAL CAPACITANCE



Mechanical Dimensions SOD-123FL(Millimeters)

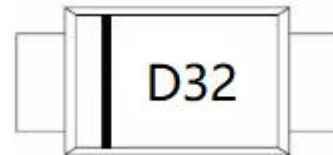


Ordering Information

Device	Package	Shipping
DSS32 THRU DSS320	SOD-123FL	3000pcs / reel

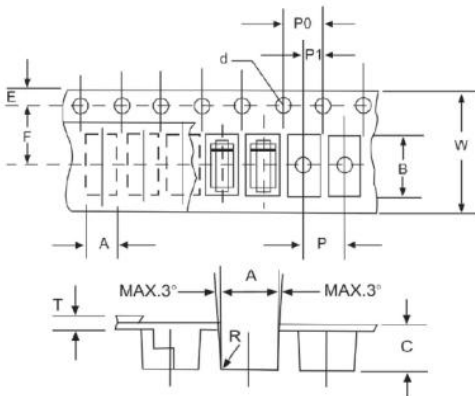
For information on tape and reel specifications, including part orientation and tape sizes, please refer to our tape and reel packaging specification.

Marking Diagram



D32 = 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



DSS32
THRU
DSS320

Technical Data
Data Sheet N2245, Rev. -



DISCLAIMER:

1- The information given herein, including the specifications and dimensions, is subject to change without prior notice to improve product characteristics. Before ordering, purchasers are advised to contact the SMC Diode Solutions sales department for the latest version of the datasheet(s).

2- In cases where extremely high reliability is required (such as use in nuclear power control, aerospace and aviation, traffic equipment, medical equipment, and safety equipment), safety should be ensured by using semiconductor devices that feature assured safety or by means of users' fail-safe precautions or other arrangement.

3- In no event shall SMC Diode Solutions be liable for any damages that may result from an accident or any other cause during operation of the user's units according to the datasheet(s). SMC Diode Solution assumes no responsibility for any intellectual property claims or any other problems that may result from applications of information, products or circuits described in the datasheets.

4- In no event shall SMC Diode Solutions be liable for any failure in a semiconductor device or any secondary damage resulting from use at a value exceeding the absolute maximum rating.

5- No license is granted by the datasheet(s) under any patents or other rights of any third party or SMC Diode Solutions.

6- The datasheet(s) may not be reproduced or duplicated, in any form, in whole or part, without the expressed written permission of SMC Diode Solutions.

7- The products (technologies) described in the datasheet(s) are not to be provided to any party whose purpose in their application will hinder maintenance of international peace and safety nor are they to be applied to that purpose by their direct purchasers or any third party. When exporting these products (technologies), the necessary procedures are to be taken in accordance with related laws and regulations..