

DSS12 THRU DSS125

SINGLE PHASE 1.0AMP SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

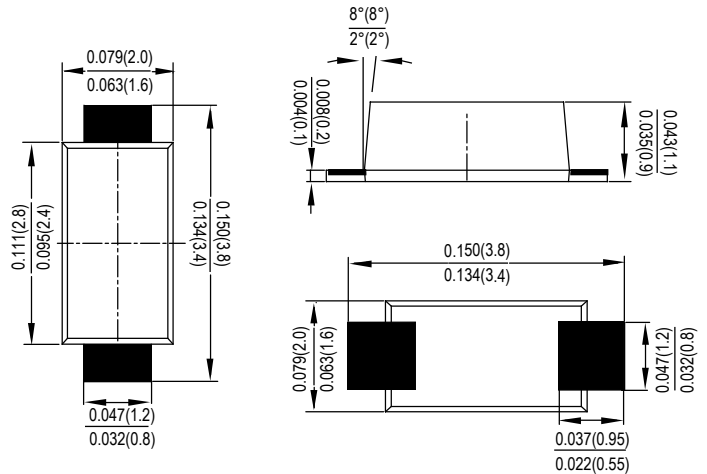
Features

- 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 °C / 10 seconds, 0.375" (9.5mm) lead length, 5 lbs. (2.3kg) tension

Mechanical Data

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

SOD-123FL



Dimensions in inches and (millimeters)

Maximum Ratings and Electrical Characteristics

Rating at 25 °C ambient temperature unless otherwise specified.

Single Phase, half wave, 60Hz, resistive or inductive load.

For capacitive load, derate current by 20%.

TYPE NUMBER	SYMBOL	DSS12	DSS13	DSS14	DSS15	DSS16	DSS18	DSS110	DSS115	DSS120	DSS125	UNITS	
	Code	D12	D13	D14	D15	D16	D18	D110	D115	D120	D125		
Peak Repetitive Reverse Voltage	V_{RRM}											V	
Working Peak Reverse Voltage	V_{RWM}	20	30	40	50	60	80	100	150	200	250		
DC Blocking Voltage	V_{DC}												
RMS Reverse Voltage	V_{RMS}	14	21	28	35	42	56	70	105	140	175	V	
Average Rectified Output Current @ $T_A = 90^\circ\text{C}$	I_o	1.0										A	
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	30										A	
Forward Voltage per element @ $I_F = 1.0\text{A}$	V_{FM}	0.55		0.7		0.85		0.92		0.95		V	
Peak Reverse Current @ $T_A = 25^\circ\text{C}$ At Rated DC Blocking Voltage @ $T_A = 100^\circ\text{C}$	I_R	0.1					0.05					mA	
		10					5						
Typical junction capacitance (NOTE 1)	C_J	110				80							pF
Operating junction temperature range	T_J	-55to+150											°C
Operating and Storage Temperature Range	T_{STG}	-55to+150											°C

Note:1. Measured at 1MHZ and applied reverse voltage of 4.0V D.C.

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FIG. 1- FORWARD CURRENT DERATING CURVE

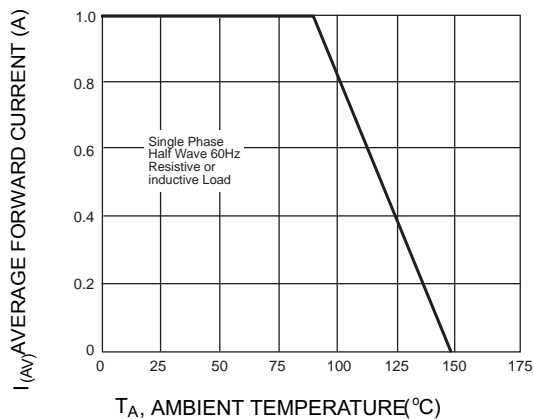


FIG. 2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

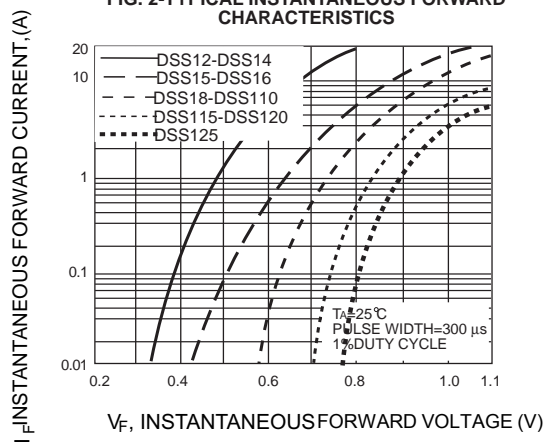


FIG. 3-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

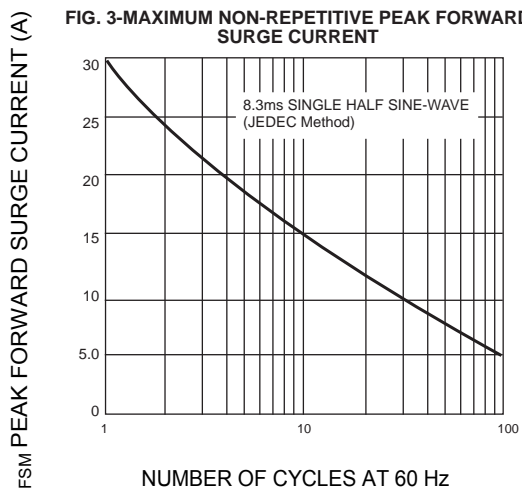


FIG. 4-TYPICAL REVERSE CHARACTERISTICS

