

DSS12 THRU DSS125

SINGLE PHASE 1.0AMP SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

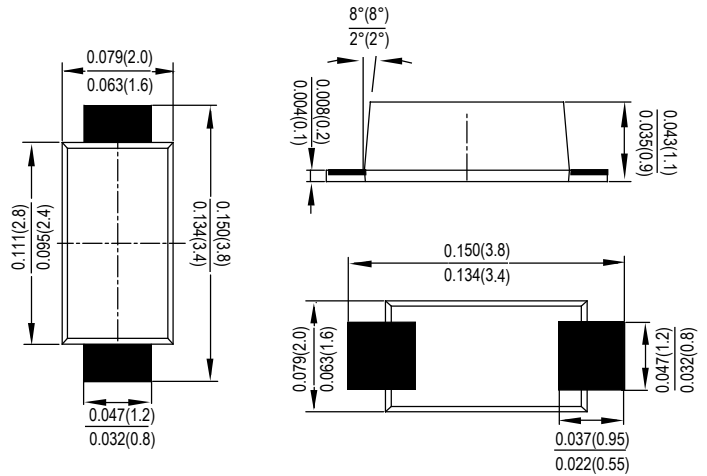
Features

- 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 @ $T_L = 90^\circ C$	$I_{F(AV)}$	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
I^2t Rating for Fusing ($t < 8.3ms$)	I^2t	3.735										A ² s
Forward Voltage per element @ $I_F=1.0A$	V_{FM}	0.55		0.7		0.85		0.92		0.95		V
Peak Reverse Current @ $T_A=25^\circ C$ At Rated DC Blocking Voltage @ $T_A=100^\circ C$	I_R	0.1					0.05					mA
		10					5					
Typical Junction Capacitance (Note 1)	C_J	35					20					pF
Typical Thermal Resistance Junction to Ambient (Note 2)	$R_{\theta JA}$	65										°C/W
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.

2. Thermal resistance from junction to ambient at 0.375" (9.5mm) lead length, P.C.B. mounted

FIG. 1- FORWARD CURRENT DERATING CURVE

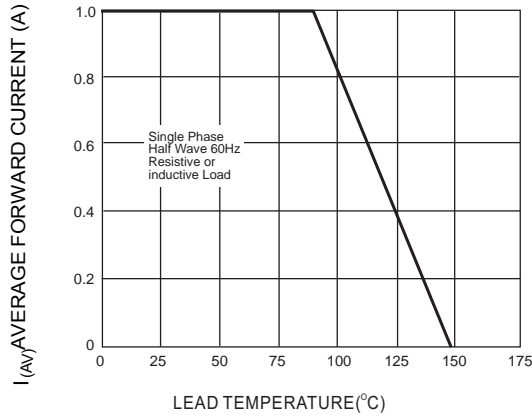


FIG. 2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

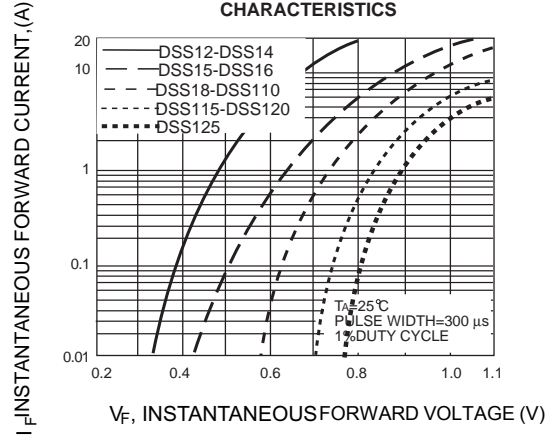


FIG. 3-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

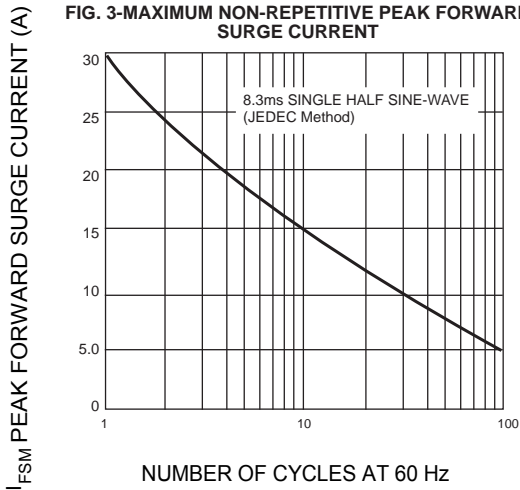


FIG. 4-TYPICAL REVERSE CHARACTERISTICS

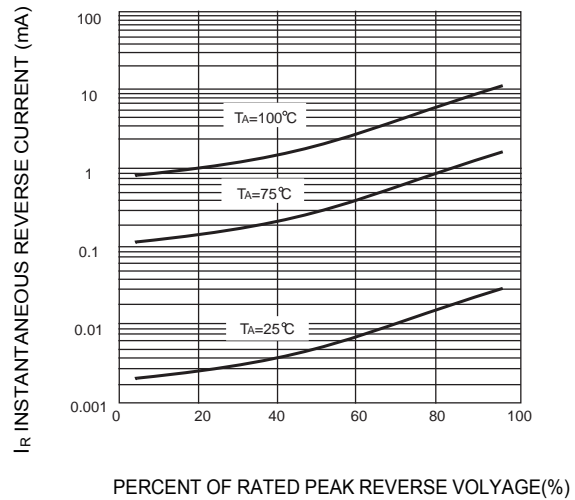
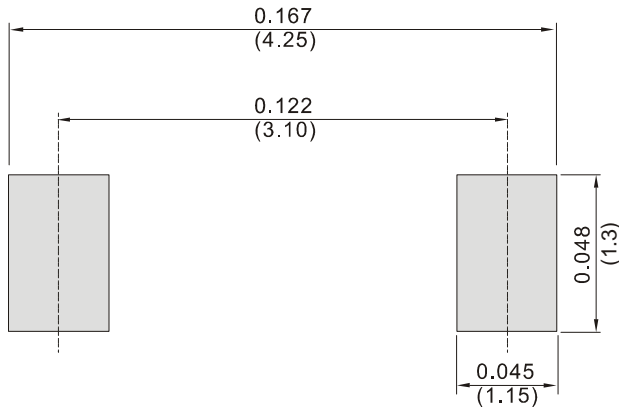


Fig.5 TYPICAL CAPACITANCE



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