

SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

DSS12 THRU DSS120

VOLTAGE RANGE
CURRENT

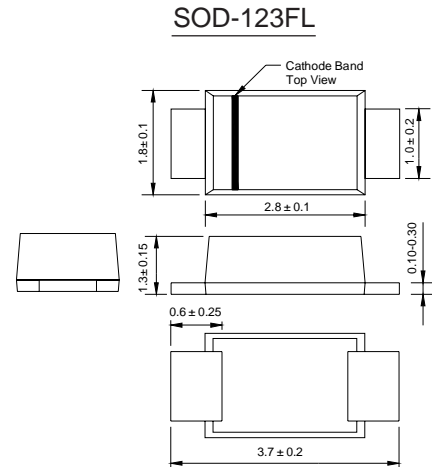
20 to 200 Volts
1.0 Ampere

FEATURES

- The plastic package carries Underwriters Laboratory
- Flammability Classification 94V-0
- Metal silicon junction, majority carrier conduction
- Low power loss, high efficiency
- High forward surge current capability
- High temperature soldering guaranteed:
250°C/10 seconds, 0.375" (9.5mm) lead length,
5 lbs. (2.3kg) tension

MECHANICAL DATA

- Case : JEDEC SOD-123FL molded plastic body
- Terminals : Solderable per MIL-STD-750,
Method 2026
- Polarity : Color band denotes cathode end
- Mounting Position : Any
- Weight : 0.0007 ounce, 0.02 grams



Dimensions in millimeters

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

- Ratings at 25 C ambient temperature unless otherwise specified.
- Single phase half-wave 60Hz, resistive or inductive load, for capacitive load current derate by 20%.

	SYMBOLS	DSS12 D12	DSS13 D13	DSS14 D14	DSS15 D15	DSS16 D16	DSS17 D17	DSS18 D18	DSS19 D19	DSS110 D110	DSS115 D115	DSS120 D120	UNITS	
Maximum repetitive peak reverse voltage	V_{RRM}	20	30	40	50	60	70	80	90	100	150	200	VOLTS	
Maximum RMS voltage	V_{RMS}	14	21	28	35	42	49	56	63	70	105	140	VOLTS	
Maximum DC blocking voltage	V_{DC}	20	30	40	50	60	70	80	90	100	150	200	VOLTS	
Maximum average forward rectified current	$I_{(AV)}$	1.0											Amp	
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	25.0											Amps	
Maximum instantaneous forward voltage at 1.0A	V_F	0.55			0.70			0.85			0.95		Volts	
Maximum DC reverse current $T_A=25^{\circ}C$ at rated DC blocking voltage $T_A=100^{\circ}C$	I_R	0.5						0.2			0.2		mA	
		10.0						5.0			2.0			
Typical junction capacitance (NOTE 1)	C_J	110				80								pF
Operating junction temperature range	T_J	-65 to +125						-65 to +150						$^{\circ}C$
Storage temperature range	T_{STG}	-65 to +150											$^{\circ}C$	

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



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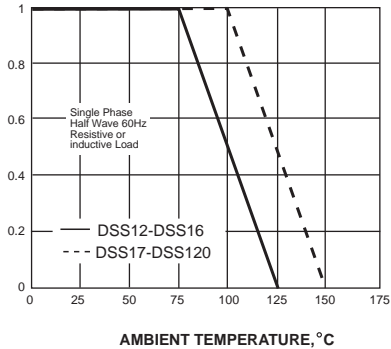
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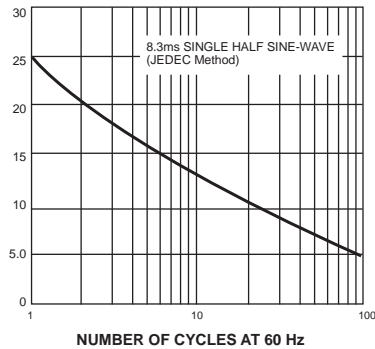
AVERAGE FORWARD RECTIFIED CURRENT,
AMPERES

FIG. 1- FORWARD CURRENT DERATING CURVE



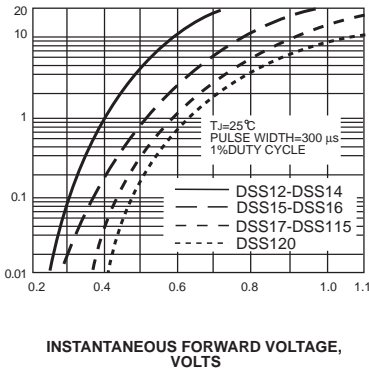
PEAK FORWARD SURGE CURRENT,
AMPERES

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



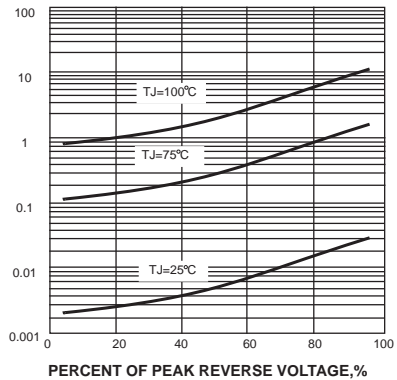
INSTANTANEOUS FORWARD CURRENT, AMPERES

FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS



INSTANTANEOUS REVERSE CURRENT,
MILLIAMPERES

FIG. 4-TYPICAL REVERSE CHARACTERISTICS



JUNCTION CAPACITANCE, pF

FIG. 5-TYPICAL JUNCTION CAPACITANCE

