

## II. Schottky Rectifier

### 1.0A Surface Mount Schottky Rectifier DSS12~DSS110

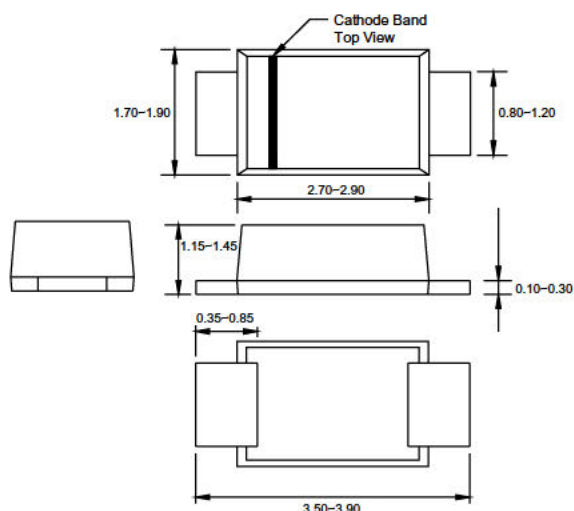
(Package: SOD-123FL)

#### 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 : Solder plated, solderable per MIL-STD-750, method 2026
- Polarity : Color band denotes cathode end
- Mounting Position : Any
- Weight : 0.020 grams



Case: SOD-123FL  
Dimensions in inches and (millimetres)

## Ratings & Electrical Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.

Single phase half-wave 60 Hz, resistive or inductive load, for capacitive load current derate by 20%.

Characteristics	Symbol	DSS 12	DSS 13	DSS 14	DSS 15	DSS 16	DSS 17	DSS 18	DSS 19	DSS 110	Units	
	Marking Code	D12	D13	D14	D15	D16	D17	D18	D19	D110		
Maximum repetitive peak reverse voltage	$V_{RRM}$	20	30	40	50	60	70	80	90	100	Volts	
Maximum RMS voltage	$V_{RMS}$	14	21	28	35	42	49	56	63	70	Volts	
Maximum DC blocking voltage	$V_{DC}$	20	30	40	50	60	70	80	90	100	Volts	
Maximum average forward rectified current	$I_o$	1.0									Amps	
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 1.0 A	$V_F$	0.55			0.70			0.85			Volts	
Maximum DC reverse current at rated DC blocking voltage $T_a = 25^\circ\text{C}$ $T_a = 100^\circ\text{C}$	$I_R$	1.0									mA	
		10.0										
Typical junction capacitance (Note 1)	$C_j$	110			80						PF	
Operating junction temperature range	$T_j$	-65 to +125					-65 to +150					°C
Storage temperature range	$T_{stg}$	-65 to +150									°C	

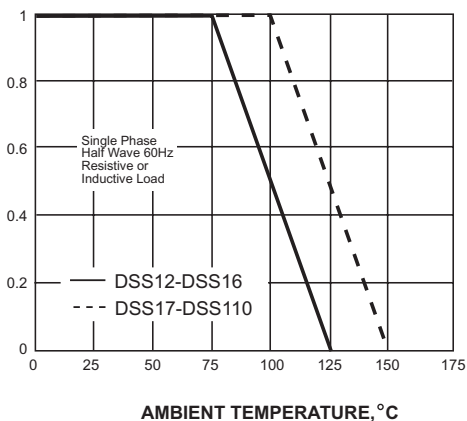
Notes:

1. Measured at 1 MHz and applied reverse voltage of 4.0 volts D.C.

# Ratings and Characteristic Curves of DSS12~DSS110

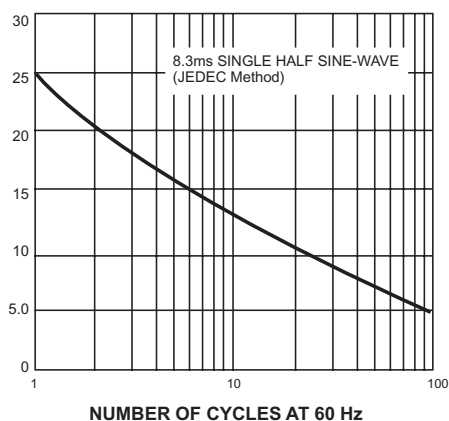
AVERAGE FORWARD RECTIFIED CURRENT, AMPERES

FIG. 1- FORWARD CURRENT DERATING CURVE



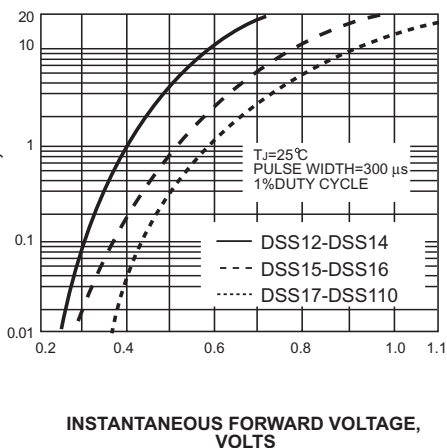
PEAK FORWARD SURGE CURRENT, AMPERES

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



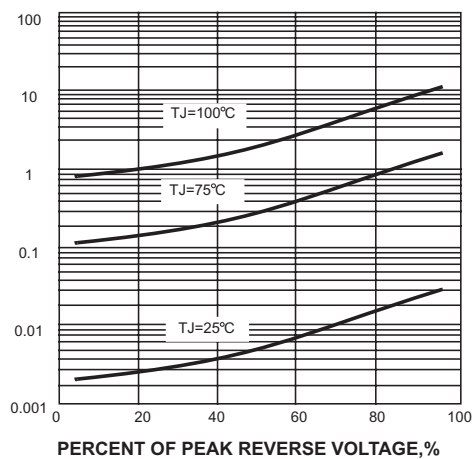
INSTANTANEOUS FORWARD CURRENT, AMPERES

FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS



INSTANTANEOUS REVERSE CURRENT, MILLIAMPERES

FIG. 4-TYPICAL REVERSE CHARACTERISTICS



JUNCTION CAPACITANCE, pF

FIG. 5-TYPICAL JUNCTION CAPACITANCE

