

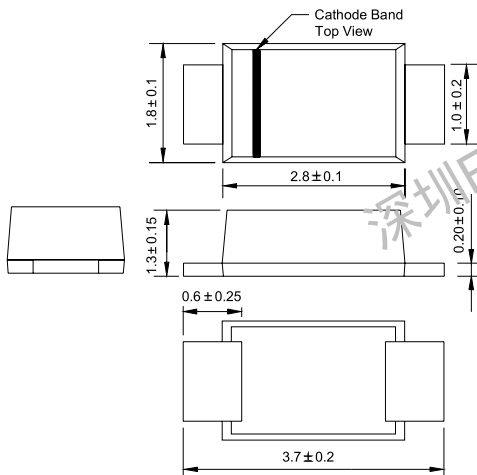
# SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

# Formosa MS

## DSS32 THRU DSS310

Reverse Voltage - 20 to 100 Volts Forward Current - 3.0 Ampere

### SOD-123FL



Dimensions in millimeters

### 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
- ◆ Green compound (halogen & Sb<sub>2</sub>O<sub>3</sub> free)

### 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

### 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%.

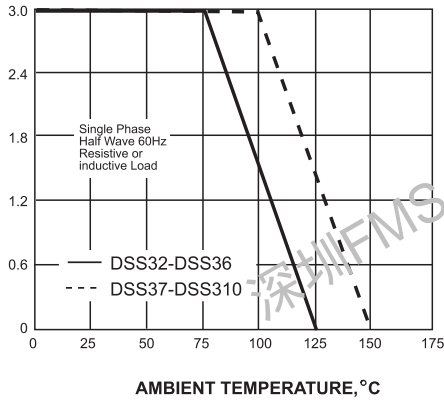
	SYMBOLS	DSS32	DSS33	DSS34	DSS35	DSS36	DSS37	DSS38	DSS39	DSS310	UNITS	
	MARK	D32	D33	D34	D35	D36	D37	D38	D39	D310		
Maximum repetitive peak reverse voltage	V <sub>RRM</sub>	20	30	40	50	60	70	80	90	100	VOLTS	
Maximum RMS voltage	V <sub>RMS</sub>	14	21	28	35	42	49	56	63	70	VOLTS	
Maximum DC blocking voltage	V <sub>DC</sub>	20	30	40	50	60	70	80	90	100	VOLTS	
Maximum average forward rectified current	I <sub>(AV)</sub>	3.0									Amp	
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I <sub>FSM</sub>	60.0									Amps	
Maximum instantaneous forward voltage at 3.0A	V <sub>F</sub>	0.55			0.70			0.85			Volts	
Maximum DC reverse current at rated DC blocking voltage T <sub>A</sub> =25°C T <sub>A</sub> =100°C	I <sub>R</sub>	0.5			10.0			0.1			mA	
Typical junction capacitance (NOTE 1)	C <sub>J</sub>	220			80							
Operating junction temperature range	T <sub>J</sub>	-65 to +125					-65 to +150					°C
Storage temperature range	T <sub>STG</sub>	-65 to +150										°C

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



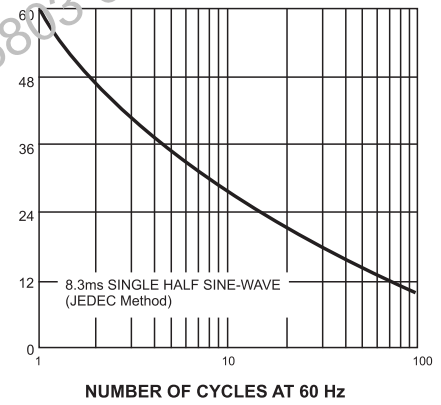
AVERAGE FORWARD RECTIFIED CURRENT,  
AMPERES

FIG. 1- FORWARD CURRENT DERATING CURVE



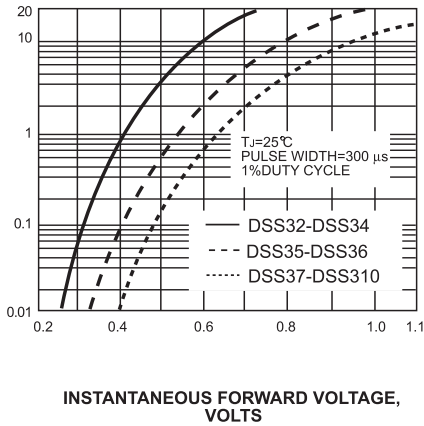
PEAK FORWARD SURGE CURRENT,  
AMPERES

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



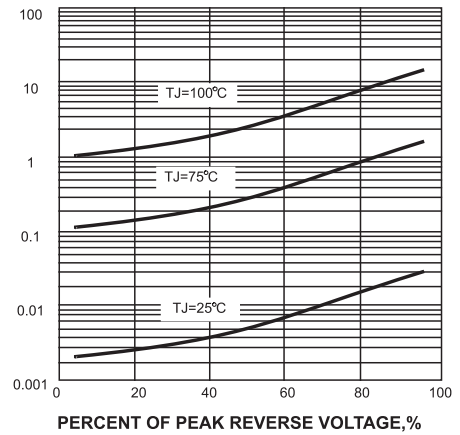
INSTANTANEOUS FORWARD CURRENT,AMPERES

FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS



INSTANTANEOUS REVERSE CURRENT,  
MILLIAMPERES

FIG. 4-TYPICAL REVERSE CHARACTERISTICS



JUNCTION CAPACITANCE, pF

FIG. 5-TYPICAL JUNCTION CAPACITANCE

