

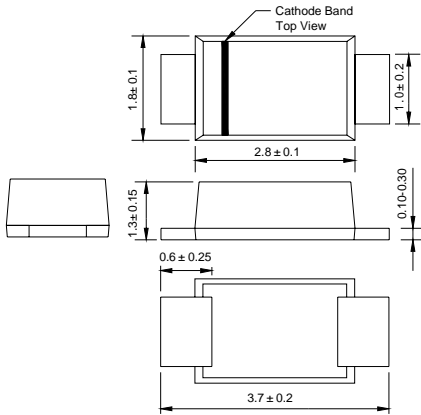
# SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

# Formosa MS

## DSK12 THRU DSK110

Reverse Voltage - 20 to 100 Volts Forward Current - 1.0 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

### MECHANICAL DATA

**Case:** JEDEC SOD-123FL molded plastic body

**Terminals:** Plated axial leads, 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%.

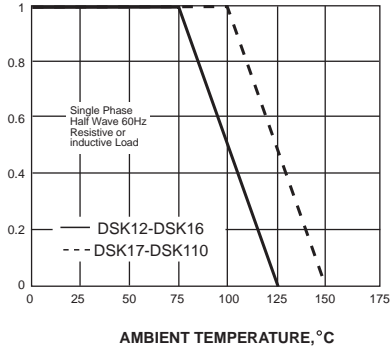
	SYMBOLS	DSK12	DSK13	DSK14	DSK15	DSK16	DSK17	DSK18	DSK19	DSK110	UNITS	
	MARK	12	13	14	15	16	17	18	19	10		
Maximum repetitive peak reverse voltage	$V_{RRM}$	20	30	40	50	60	70	80	90	100	VOLTS	
Maximum RMS voltage	$V_{RMS}$	14	21	28	35	42	49	56	63	70	VOLTS	
Maximum DC blocking voltage	$V_{DC}$	20	30	40	50	60	70	80	90	100	VOLTS	
Maximum average forward rectified current	$I_{(AV)}$	1.0									Amp	
Peak forward surge current	$I_{FSM}$	25.0									Amps	
8.3ms single half sine-wave superimposed on rated load (JEDEC Method)												
Maximum instantaneous forward voltage at 1.0A	$V_F$	0.55			0.70		0.85			Volts		
Maximum DC reverse current	$I_R$	0.5									mA	
at rated DC blocking voltage		10.0					5.0					
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	

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



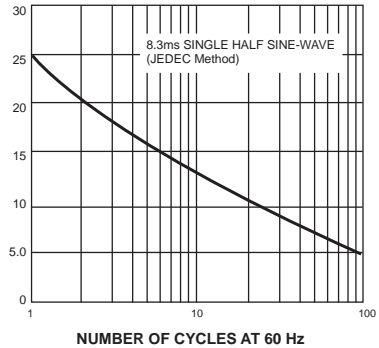
AVERAGE FORWARD RECTIFIED CURRENT, AMPERES

**FIG. 1- FORWARD CURRENT DERATING CURVE**



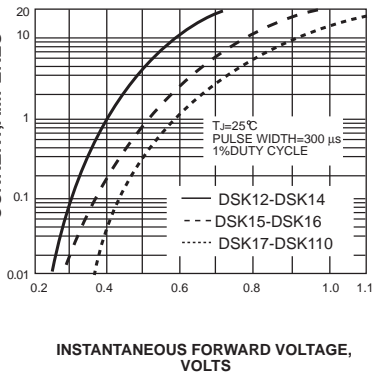
PEAK FORWARD SURGE CURRENT, AMPERES

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



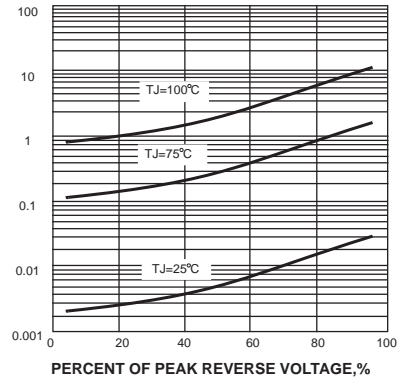
INSTANTANEOUS FORWARD CURRENT, AMPERES

**FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS**



INSTANTANEOUS REVERSE CURRENT, MILLIAMPERES

**FIG. 4-TYPICAL REVERSE CHARACTERISTICS**



JUNCTION CAPACITANCE, pF

**FIG. 5-TYPICAL JUNCTION CAPACITANCE**

