

# SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

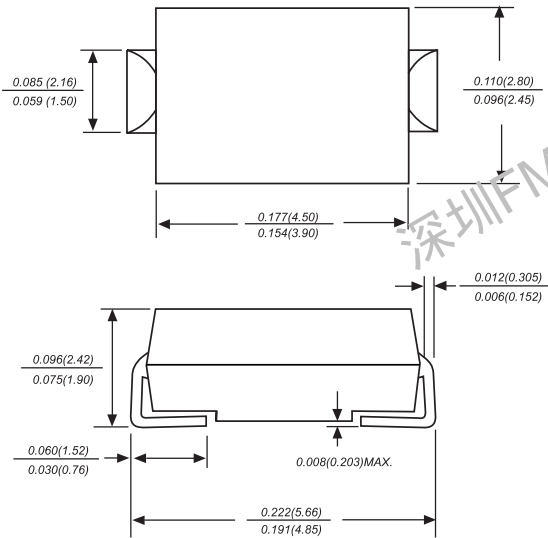
# Formosa MS

## SS12 THRU SS120

Reverse Voltage -20 to 200 Volts

Forward Current -1.0 Ampere

### SMA/DO-214AC



Dimensions in inches and (millimeters)

### FEATURES

- ◆ The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- ◆ For surface mounted applications
- ◆ Metal silicon junction, majority carrier conduction
- ◆ Low power loss, high efficiency
- ◆ Built-in strain relief, ideal for automated placement
- ◆ High forward surge current capability
- ◆ High temperature soldering guaranteed: 250°C/10 seconds at terminals

### MECHANICAL DATA

**Case:** JEDEC DO-214AC molded plastic body  
**Terminals:** leads solderable per MIL-STD-750, Method 2026

**Polarity:** Color band denotes cathode end

**Mounting Position:** Any

**Weight:** 0.003 ounce, 0.093 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	SS12	SS13	SS14	SS15	SS16	SS18	SS110	SS115	SS120	UNITS
Maximum repetitive peak reverse voltage	$V_{RRM}$	20	30	40	50	60	80	100	150	200	VOLTS
Maximum RMS voltage	$V_{RMS}$	14	21	28	35	42	56	70	105	140	VOLTS
Maximum DC blocking voltage	$V_{DC}$	20	30	40	50	60	80	100	150	200	VOLTS
Maximum average forward rectified current at $T_L$ (see fig.1)	$I_{(AV)}$	1.0									Amp
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	$I_{FSM}$	30.0									Amps
Maximum instantaneous forward voltage at 1.0A	$V_F$	0.45	0.55	0.70			0.85		0.90		Volts
Maximum DC reverse current at rated DC blocking voltage $T_A=25^\circ\text{C}$ $T_A=100^\circ\text{C}$	$I_R$	0.5									mA
		6.0			5.0						
Typical junction capacitance (NOTE 1)	$C_J$	110			90						pF
Typical thermal resistance (NOTE 2)	$R_{\theta JA}$	88.0									°C/W
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.

2. P.C.B. mounted with 0.2x0.2" (5.0x5.0mm) copper pad areas

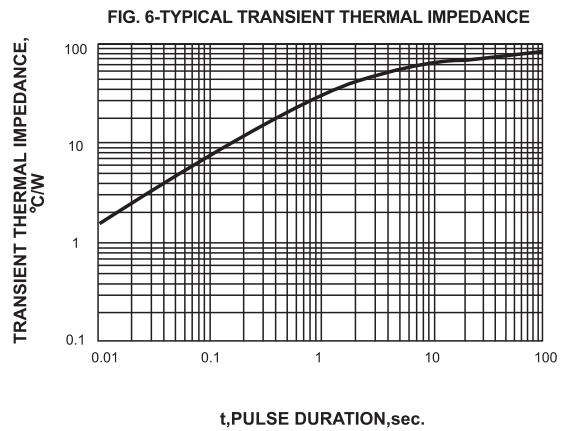
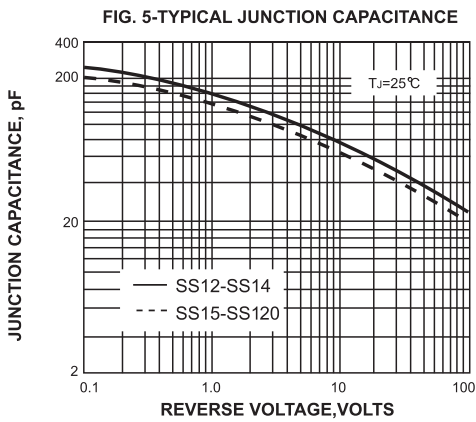
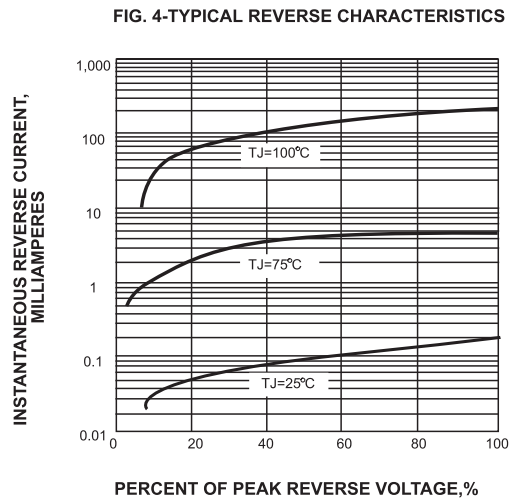
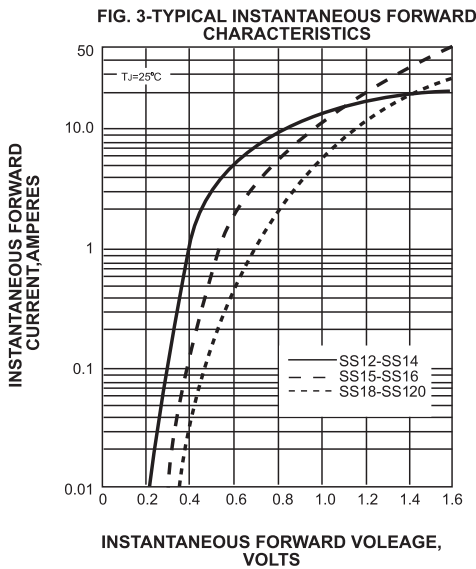
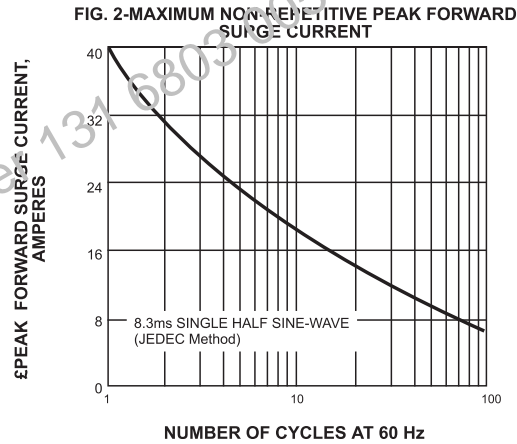
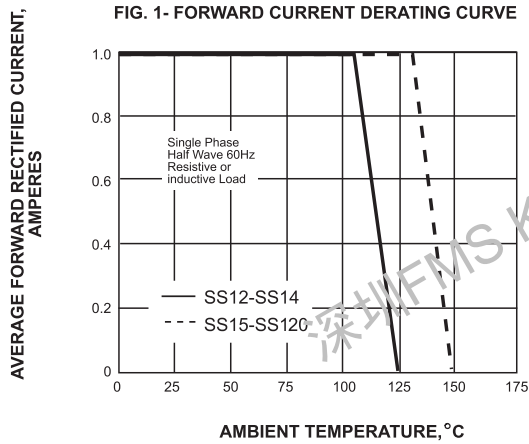


<http://www.formosams.com/>  
 TEL: 886-2-22696661  
 FAX: 886-2-22696141

Document ID	Issued Date	Revised Date	Revision	Page.
DS-222645	2008/02/10	2010/03/10	B	2

**SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER**  
**RATINGS AND CHARACTERISTIC CURVES SS12 THRU SS120**

**Formosa MS**



Document ID	Issued Date	Revised Date	Revision	Page.
DS-222645	2008/02/10	2010/03/10	B	2