

## II. Schottky Rectifier

### 1.0A Surface Mount Schottky Rectifier S12~S120

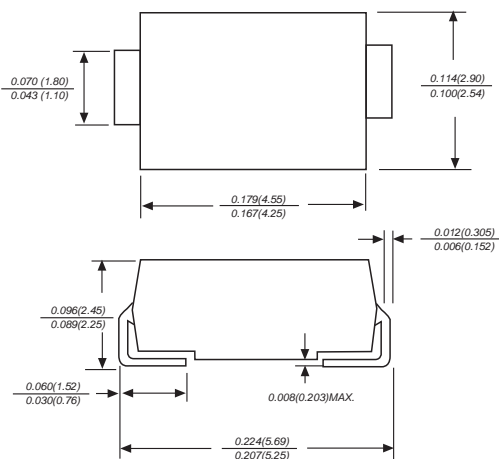
(Package: SMA (DO-214AC))

#### 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 /10 seconds at terminals

#### MECHANICAL DATA

- Case : JEDEC DO-214AC molded plastic body
- Terminals : Solder plated, solderable per MIL-STD-750, method 2026
- Polarity : Color band denotes cathode end
- Mounting Position : Any
- Weight : 0.093 grams



Case: SMA  
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%.

Characteristic	Symbol	S12	S13	S14	S15	S16	S18	S110	S115	S120	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 TL (see Fig. 1)	$I_O$	1.0									Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	$I_{FSM}$	30									Amps
Maximum instantaneous forward voltage at 1.0A DC	$V_F$	0.55		0.70		0.85		0.95		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						1.0		mA	
		6.0		5.0		10					
Typical junction capacitance (Note 1)	$C_j$	110		90						PF	
Typical thermal resistance (Note 2)	$R_{th-JA}$	88									$^\circ\text{C/W}$
Operating junction temperature range	$T_j$	-65 to +125			-65 to +150						$^\circ\text{C}$
Storage temperature range	$T_{stg}$	-65 to +150									$^\circ\text{C}$

Notes:

1. Measured at 1 MHz and applied reverse voltage of 4.0 volts D.C.
2. P.C.B. mounted with 0.2 x 0.2" (5.0 x 5.0mm) copper pad areas.

# Ratings and Characteristic Curves of S12~S120

