

# ESS1218A3 Biased Schottky Diode Detector

SMA-F/SMA-M Negative Output Polarity

12.0 to 18.0 GHz Octave Band



## Technical Characteristics

### Product Features

|                                             |
|---------------------------------------------|
| High Dynamic Range @100 uA typ. bias        |
| Flat Frequency Response                     |
| Ultra Wideband and Ultra fast               |
| Low Video Output Resistance (350 ohms typ.) |
| Negative Polarity is Standard               |
| High Reliability Hermetically Sealed Coax   |
| RoHS Compliant                              |

### Max. Ratings

|                        |                 |
|------------------------|-----------------|
| Storage Temperature:   | -65°C to +125°C |
| Operating Temperature: | -55°C to +90°C  |
| Maximum input power:   | 200mW           |

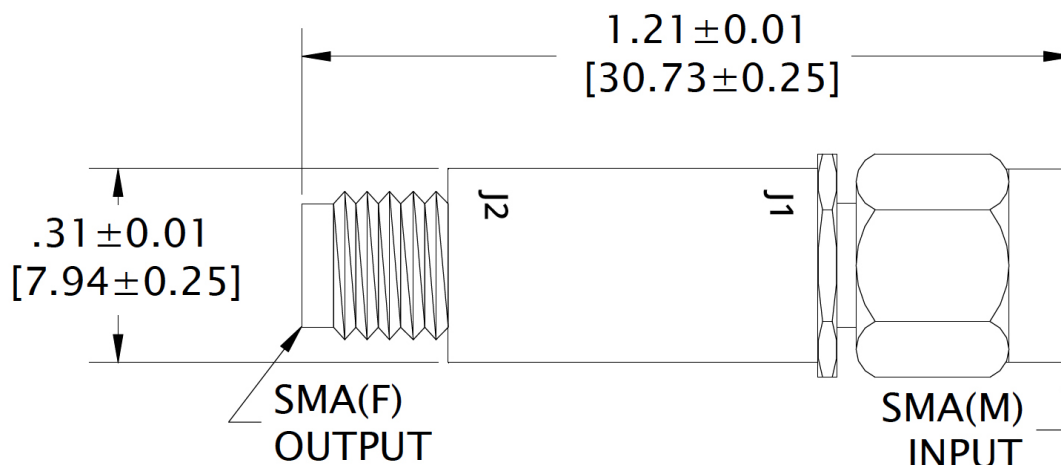
## Electrical Specifications

| Parameters                      | Freq. (GHz)      | Min. | Typical | Max. | Units  |
|---------------------------------|------------------|------|---------|------|--------|
| Voltage Sensitivity             | 12.0 to 18.0 GHz |      | 1800    |      | mV/mW  |
| Bias                            |                  |      | 100     |      | μA     |
| Tangential Sensitivity (Note 1) | 12.0 to 18.0 GHz |      | -52     |      | dBm    |
| Flatness                        | 12.0 to 18.0 GHz |      | 0.25    |      | +/-dB  |
| Video Capacitance               |                  |      | 10      |      | pF     |
| CW Power Handling               |                  |      |         | 200  | mWatts |
| Operating Temperature           |                  | -55  |         | 125  | °C     |

### NOTES:

1. TSS is measured with a 2 MHz video bandwidth and 2dB NF amplifier.
2. Typical values are measured at +25°C and are not guaranteed.
3. At -20dBm input power.
4. Add "P" to model for positive polarity, ex. ESS1218PA3

## Outline Drawing



Product Export Classification  
ECCN: EAR 99 (unless  
otherwise specified)  
HTS: 8541.10.0060



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