# **DT7585A3 Tunnel Diode Detector**

7.50 to 8.50 GHz Negative Polarity, SMA Connector, Bias Detector with 50  $\Omega$  SMA Male to SMA Female Female Video Out Operating from 7.50 to 8.50 GHz



"A3" pkg. P/N DT7585A3



#### Product Export Classification ECCN: EAR 99 (Unless otherwise specified) HTS: 8542330000

### CONFIGURATION

Contractivition	
Bias Type	No Bias
Detector Polarity, Note 3	Negative [-]
Body Style	Coaxial
RF Input Connector	SMA [Male]
RF Input Impedance	50 Ω
Video Output Connector	SMA [Female]
Detector Type	Narrow Band

NOTES:

1. TSS is measured with a video amplifier having at least 50dB gain, <3dB NF and 2 MHz video bandwidth.

2. Typical values are measured at +25°C and are not guaranteed.

3. Negative output polarity is standard. Add P to the end of the model number for positive polarity, ex. DT7585PA3 Pos(+)

4. To select a package, refer to pg. 2 and insert package name, ex. NB. Order P/N D7585NB (polarity + or -)

### A3 Outline Drawing

## PRODUCT FEATURES

### No bias required

Extremely low video output resistance (125  $\Omega$  typ)

Extremely fast pulse response (5 nsec risetime typ)

Excellent frequency response

Excellent dynamic range & loaded voltage output sensitivity

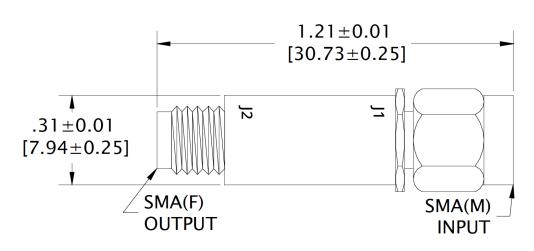
Negative Polarity is Standard

High Reliability Hermetically Sealed Coax

RoHS Compliant

ELECTRICAL SPECIFICATIONS	
Frequency Range [GHz]	7.50 to 8.50
Voltage Sensitivity [mV/mW], typ.	1000
Tss [dB], Note 1, typ.	-50
VSWR, typ.	2.3:1
Flatness [±dB], typ.	0.25
Video Cap [pF], typ.	20

MAXIMUM RATINGS	
Max. Input Power [dBm]	13
Storage Temperature [deg. °]	-65° to +125 ° C
Operating Temperature [deg. °]	-65° to +115 ° C
Specifications @ [° C]	25



### About EclipseMDI

ECLIPSE Microdevices is located in San Jose, California. ECLIPSE has been developing high performance analog semiconductors for use in wireless radio frequency (RF), microwave, and millimeter wave for commercial and industrial applications. ECLIPSE has formed a strategic alliances - with foundries that features leading state-of-the-art process technologies and with manufacturing facilities for high-volume production of innovative RFIC's.



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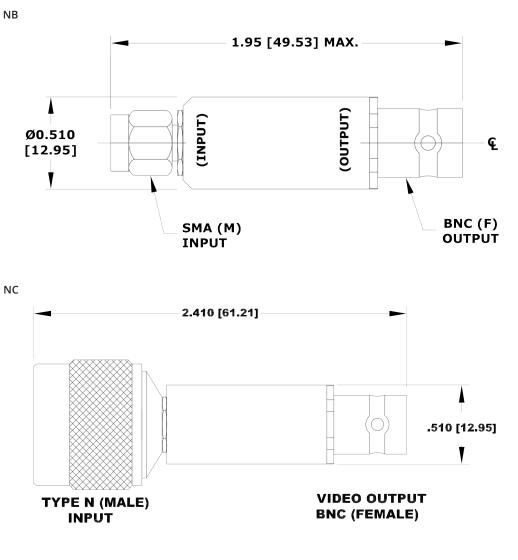
1.408.526.1100

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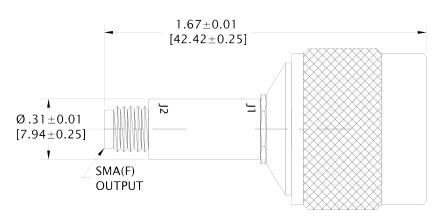
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**Outline Drawings** 



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TYPE "N" MALE - INPUT CONNECTOR

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