

Tunnel Detectors

Coaxial Tunnel Diode, Tunnel Diode, High Frequency Tunnel Diode, and Surface Mount Detectors

Data Sheet Revision Date: 10/26/2017

The most important thing we build is trust

Description

The detectors listed are standard products. There are many possible variations, which can be selected as options. Package configurations can be changed if desired. Performance characteristics may be modified to meet special requirements (e.g. the sensitivity might be moved higher or lower with a corresponding effect on VSWR). RF bypass capacitance values can be selected on some models.

Frequency Range (GHz)	Part Number	Sensitivity (min) mV/mW	Flatness vs. Frequency (max) \pm dB	Typical TSS (dBm)	Typical VSWR	Nominal Video Capacitance (pF)	Detector Type
0.1 - 2.0	ACTP-1629NC3	900	0.35	-51	2.3:1	75	Coaxial Tunnel Diode
1.0 - 2.0	ACTP-1525NC3	800	0.25	-51	2.5:1	20	Coaxial Tunnel Diode
2.0 - 4.0	ACTP-1502NC3	800	0.2	-51	2.3:1	20	Coaxial Tunnel Diode
4.0 - 8.0	ACTP-1648NC3	650	0.4	-50	2.0:1	12	Coaxial Tunnel Diode
8.0 - 12.0	ACTP-1504NC3	700	0.4	-50	2.4:1	9	Coaxial Tunnel Diode
2.0 - 18.0	ACTP-1528NC3	650	1.0	-50	2.8:1	12	Coaxial Tunnel Diode
0.5 - 18.0	ACTP-1584NC3	600	1.3	-50	3.0:1	20	Coaxial Tunnel Diode
1.0 - 18.0	ACTP-1625NC3	650	1.1	-50	2.7:1	20	Coaxial Tunnel Diode
8.0 - 18.0	ACTP-1506NC3	650	0.7	-50	2.3:1	12	Coaxial Tunnel Diode
12.0 - 18.0	ACTP-1505NC3	700	0.4	-51	2.1:1	9	Coaxial Tunnel Diode
0.5 - 2.0	ACTM-1001NM12	900	0.25	-51	2.5:1	75	Tunnel Diode
2.0 - 4.0	ACTM-1002NM12	850	0.35	-51	2.0:1	39	Tunnel Diode
2.0 - 6.0	ACTM-1006NM12	900	0.4	-51	2.5:1	20	Tunnel Diode
8.0 - 12.0	ACTM-1012NM12	650	0.4	-50	2.0:1	12	Tunnel Diode
2.0 - 18.0	ACTM-1009NM12	650	1.0	-50	3.0:1	20	Tunnel Diode
6.0 - 18.0	ACTM-1058NM12	700	1.0	-49	2.5:1	9	Tunnel Diode
8.0 - 18.0	ACTM-1066NM12	700	0.9	-49	2.5:1	9	Tunnel Diode
1.0 - 20.0	ACTM-1144NM12	600	1.3	-49	3.0:1	20	Tunnel Diode
0.01 - 0.5	ACTM-1114NM47	800	0.3	2.3:1	270	-	Surface Mount
0.5 - 1.0	ACTM-1146NM47	1,000	0.2	2.3:1	270	-	Surface Mount
1.0 - 2.0	ACTM-1137NM47	1,000	0.2	2.3:1	75	-	Surface Mount
2.0 - 4.0	ACTM-1130NM47	900	0.3	2.3:1	12	-	Surface Mount

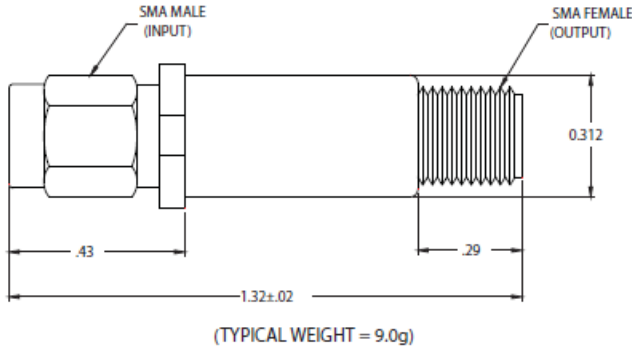
Frequency Range (GHz)	Part Number	Flatness vs. Frequency \pm dB	Minimum Output Voltage (mV)	Nominal Video Capacitance (pF)	Detector Type
18.0 - 40.0	ACTP-1795NC7	1.0	4	9.1	High Frequency Tunnel Diode

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 40 Industrial Way East
 Eatontown, NJ 07724

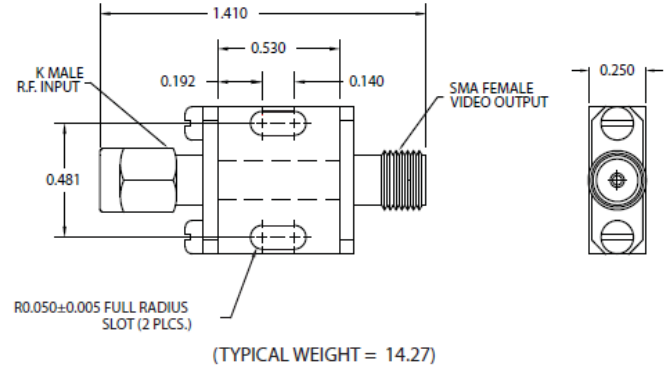
Tel: 732.460.0212
 Email: MES.Eatontown@cobham.com

Case Styles

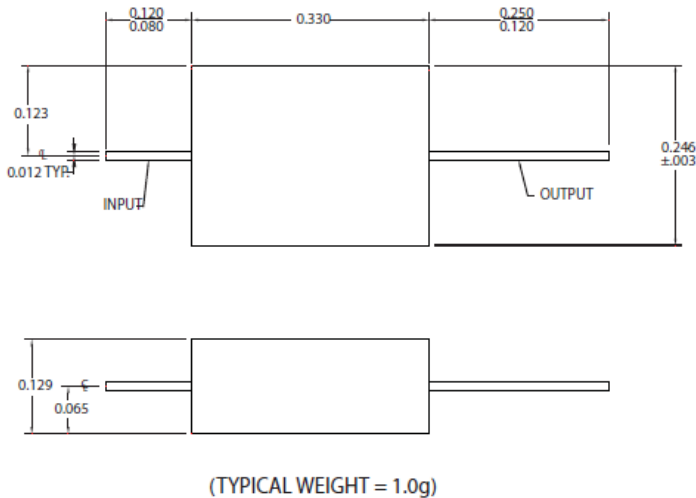
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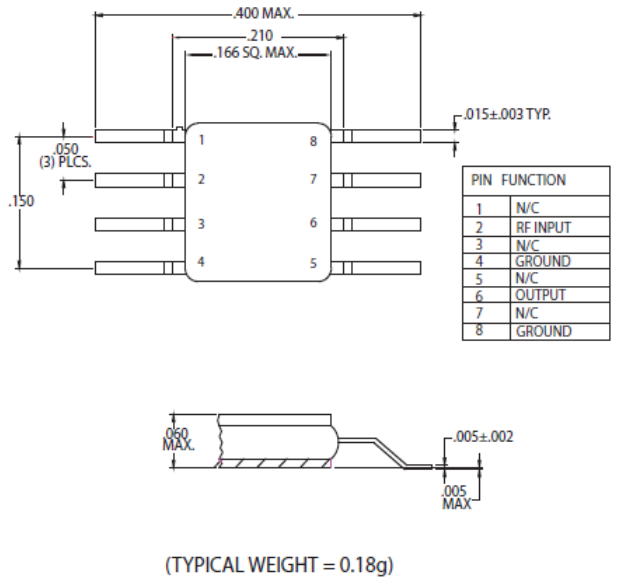
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Outline Case Style M12



Outline Case Style M47



Notes

1. Available in both negative and positive polarities, substitute "N" or "P" in part number.
2. Diode values can be changed to alter the level of sensitivity. As sensitivity is increased, VSWR will degrade. VSWR will improve as sensitivity is lowered. Flatness and TSS will also be influenced by these changes. If your applications require something special, please contact the factory.
3. Tangential Signal Sensitivity (TSS) is a measure of low level sensitivity with respect to noise. It is measured using a video amplifier with a 2MHz bandwidth and a 3dB noise figure.
4. VSWR measured at or below -20dBm input power level.
5. Video capacitance is used for RF bypass. This value can be changed if required for video response time or other considerations. Contact the factory if values other than those shown are needed.