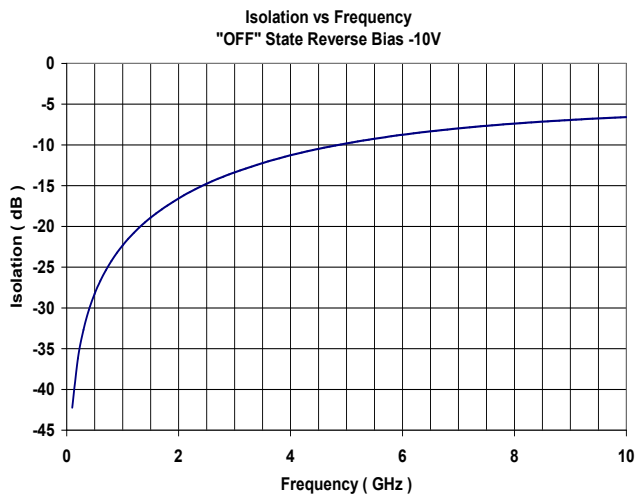
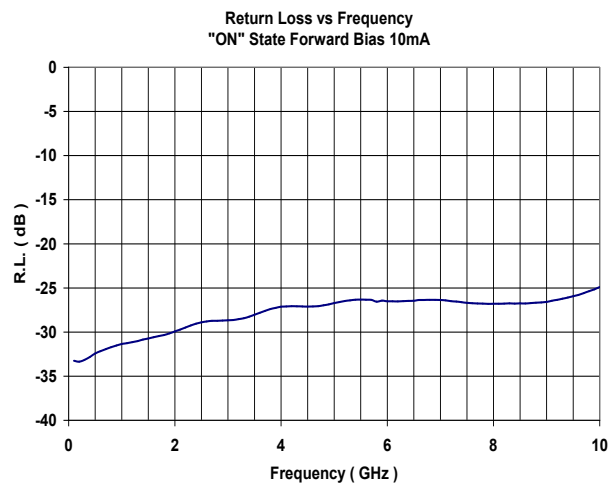
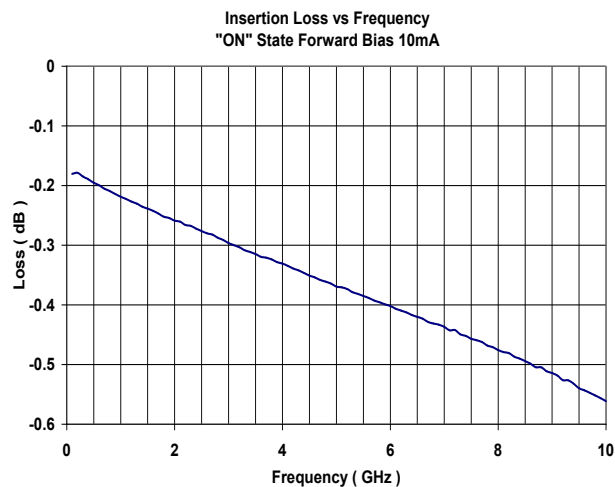


## Typical RF Performance



Devices mounted in series configuration and fixture losses removed from data.

# MADP-008120-12790T



## Surface Mount Plastic PIN Diodes

Rev. V5

### S-Parameter Data

MADP-008120-12790T

: Insertion Loss @ 10 mA, 1V in Single Series Diode Configuration, Z0 = 50 Ohms

F (GHz)	S11 Mag	S11 Ang	S21 Mag	S21 Ang	S12 Mag	S12 Ang	S22 Mag	S22 Ang
0.100	0.022	-15.170	0.979	-0.570	0.979	-0.570	0.021	-11.230
0.200	0.021	-9.400	0.980	-1.560	0.980	-1.560	0.021	-4.320
0.300	0.022	-8.740	0.979	-2.470	0.979	-2.470	0.022	-1.650
0.400	0.023	-9.470	0.978	-3.320	0.978	-3.320	0.023	-1.510
0.500	0.024	-9.420	0.978	-4.140	0.978	-4.140	0.024	-4.040
0.600	0.025	-9.370	0.977	-4.960	0.977	-4.960	0.025	-7.280
0.700	0.025	-9.560	0.977	-5.790	0.977	-5.790	0.025	-11.080
0.800	0.026	-9.630	0.976	-6.600	0.976	-6.600	0.026	-14.950
0.900	0.027	-10.130	0.976	-7.410	0.976	-7.410	0.027	-18.340
1.000	0.027	-11.180	0.975	-8.210	0.975	-8.200	0.027	-21.010
1.100	0.027	-13.470	0.975	-9.020	0.975	-9.020	0.028	-22.930
1.200	0.028	-16.910	0.974	-9.820	0.974	-9.820	0.028	-23.660
1.300	0.028	-20.680	0.974	-10.620	0.974	-10.620	0.029	-24.110
1.400	0.029	-24.730	0.973	-11.410	0.973	-11.410	0.029	-24.180
1.500	0.029	-28.640	0.973	-12.220	0.973	-12.220	0.030	-24.360
1.600	0.030	-31.880	0.972	-13.020	0.972	-13.020	0.030	-25.130
1.700	0.030	-34.670	0.972	-13.830	0.972	-13.830	0.031	-26.720
1.800	0.030	-36.090	0.971	-14.600	0.971	-14.600	0.031	-28.760
1.900	0.031	-36.820	0.971	-15.400	0.971	-15.400	0.032	-31.590
2.000	0.032	-37.230	0.971	-16.200	0.971	-16.200	0.033	-34.700
2.100	0.033	-37.670	0.970	-16.990	0.970	-16.990	0.034	-37.980
2.200	0.034	-38.210	0.970	-17.780	0.970	-17.780	0.035	-40.890
2.300	0.034	-39.030	0.970	-18.580	0.970	-18.580	0.036	-43.210
2.400	0.035	-40.590	0.969	-19.380	0.969	-19.380	0.037	-45.310
2.500	0.036	-42.350	0.969	-20.180	0.969	-20.180	0.038	-46.570
2.600	0.036	-44.820	0.968	-20.970	0.968	-20.970	0.038	-47.510
2.700	0.037	-47.340	0.968	-21.760	0.968	-21.760	0.039	-48.060
2.800	0.037	-49.970	0.967	-22.550	0.967	-22.550	0.040	-48.590
2.900	0.037	-52.490	0.967	-23.350	0.967	-23.350	0.040	-49.080
3.000	0.037	-54.590	0.966	-24.130	0.966	-24.130	0.041	-49.680
3.100	0.037	-56.300	0.966	-24.920	0.966	-24.920	0.041	-50.610
3.200	0.037	-57.680	0.966	-25.730	0.966	-25.730	0.042	-51.850
3.300	0.038	-58.500	0.965	-26.500	0.965	-26.500	0.043	-53.420
3.400	0.039	-59.150	0.965	-27.290	0.965	-27.290	0.043	-55.100
3.500	0.040	-59.900	0.964	-28.090	0.964	-28.090	0.044	-56.800
3.600	0.041	-60.440	0.964	-28.870	0.964	-28.870	0.045	-58.680
3.700	0.042	-61.400	0.964	-29.670	0.964	-29.670	0.046	-60.340
3.800	0.043	-62.360	0.963	-30.470	0.963	-30.470	0.047	-61.840
3.900	0.043	-63.520	0.963	-31.250	0.963	-31.250	0.048	-62.860
4.000	0.044	-64.980	0.963	-32.050	0.963	-32.050	0.049	-63.740
4.100	0.044	-66.650	0.962	-32.850	0.962	-32.850	0.049	-64.400
4.200	0.044	-68.080	0.962	-33.630	0.962	-33.630	0.050	-65.020
4.300	0.044	-69.560	0.961	-34.430	0.961	-34.430	0.050	-65.500
4.400	0.044	-70.860	0.961	-35.220	0.961	-35.220	0.051	-65.810
4.500	0.044	-72.070	0.960	-36.010	0.960	-36.010	0.051	-66.470
4.600	0.044	-72.940	0.960	-36.810	0.960	-36.810	0.051	-67.090
4.700	0.044	-73.710	0.960	-37.590	0.960	-37.590	0.052	-67.830
4.800	0.045	-74.390	0.959	-38.390	0.959	-38.390	0.053	-68.770
4.900	0.045	-74.990	0.959	-39.190	0.959	-39.190	0.053	-69.830
5.000	0.046	-75.460	0.958	-39.980	0.958	-39.980	0.054	-70.850
5.100	0.047	-76.260	0.958	-40.780	0.958	-40.780	0.054	-71.980
5.200	0.047	-77.020	0.958	-41.590	0.958	-41.590	0.055	-72.950
5.300	0.048	-77.800	0.957	-42.380	0.957	-42.380	0.056	-73.660
5.400	0.048	-78.490	0.957	-43.180	0.957	-43.180	0.056	-74.540
5.500	0.048	-79.410	0.957	-43.980	0.957	-43.980	0.057	-74.980
5.600	0.048	-80.330	0.956	-44.770	0.956	-44.770	0.057	-75.490
5.700	0.048	-81.070	0.956	-45.570	0.956	-45.570	0.058	-75.750
5.800	0.047	-82.150	0.955	-46.370	0.955	-46.370	0.057	-76.580
5.900	0.048	-82.340	0.955	-47.170	0.955	-47.170	0.058	-76.030
6.000	0.047	-82.800	0.955	-47.970	0.955	-47.970	0.058	-76.240
6.100	0.047	-83.130	0.954	-48.770	0.954	-48.770	0.058	-76.300
6.200	0.047	-83.430	0.954	-49.590	0.954	-49.590	0.059	-76.650
6.300	0.047	-83.650	0.954	-50.380	0.954	-50.380	0.059	-76.890
6.400	0.048	-84.070	0.953	-51.180	0.953	-51.180	0.059	-77.260
6.500	0.048	-84.640	0.953	-51.990	0.953	-51.990	0.059	-78.150
6.600	0.048	-84.660	0.952	-52.800	0.952	-52.800	0.059	-78.220
6.700	0.048	-84.970	0.952	-53.610	0.952	-53.610	0.059	-78.730
6.800	0.048	-85.190	0.952	-54.420	0.952	-54.420	0.059	-79.130
6.900	0.048	-85.460	0.951	-55.230	0.951	-55.230	0.059	-79.460
7.000	0.048	-85.580	0.951	-56.050	0.951	-56.050	0.060	-79.700
7.100	0.048	-85.550	0.950	-56.850	0.950	-56.850	0.060	-79.860
7.200	0.047	-85.290	0.950	-57.680	0.950	-57.680	0.060	-79.560
7.300	0.047	-85.250	0.950	-58.490	0.950	-58.490	0.060	-79.430
7.400	0.047	-84.700	0.949	-59.310	0.949	-59.310	0.060	-79.170
7.500	0.046	-84.300	0.949	-60.120	0.949	-60.120	0.060	-78.790
7.600	0.046	-84.020	0.948	-60.940	0.948	-60.940	0.060	-78.360
7.700	0.046	-83.400	0.948	-61.770	0.948	-61.770	0.060	-77.920
7.800	0.046	-82.890	0.948	-62.580	0.948	-62.580	0.060	-77.490
7.900	0.046	-82.280	0.947	-63.400	0.947	-63.400	0.060	-77.120
8.000	0.046	-81.610	0.947	-64.220	0.947	-64.220	0.060	-76.540
8.100	0.046	-80.960	0.946	-65.050	0.946	-65.050	0.060	-76.370
8.200	0.046	-80.450	0.946	-65.870	0.946	-65.870	0.060	-76.880
8.300	0.046	-79.740	0.945	-66.710	0.945	-66.710	0.060	-75.310
8.400	0.046	-78.800	0.945	-67.550	0.945	-67.550	0.060	-74.840
8.500	0.046	-77.850	0.945	-68.380	0.945	-68.380	0.060	-74.380
8.600	0.046	-76.690	0.944	-69.200	0.944	-69.200	0.060	-73.720
8.700	0.046	-75.220	0.944	-70.030	0.944	-70.030	0.060	-72.950
8.800	0.046	-73.840	0.944	-70.880	0.944	-70.880	0.061	-72.390
8.900	0.047	-72.270	0.943	-71.710	0.943	-71.710	0.061	-71.000
9.000	0.047	-70.680	0.943	-72.560	0.943	-72.560	0.062	-70.000
9.100	0.048	-69.190	0.942	-73.400	0.942	-73.400	0.062	-68.900
9.200	0.048	-67.550	0.941	-74.250	0.941	-74.250	0.062	-67.920
9.300	0.049	-66.230	0.941	-75.090	0.941	-75.090	0.063	-66.540
9.400	0.050	-64.590	0.941	-75.930	0.941	-75.930	0.063	-65.420
9.500	0.050	-63.310	0.940	-76.770	0.940	-76.770	0.064	-64.240
9.600	0.051	-62.050	0.939	-77.630	0.939	-77.630	0.064	-63.200
9.700	0.053	-60.350	0.939	-78.490	0.939	-78.490	0.065	-62.010
9.800	0.054	-59.300	0.938	-79.350	0.938	-79.350	0.066	-60.960
9.900	0.055	-57.990	0.938	-80.200	0.938	-80.200	0.067	-60.070
10.000	0.057	-56.400	0.937	-81.060	0.937	-81.060	0.068	-58.840

MADP-008120-12790T

: Isolation @ -10V, 0mA in Single Series Diode Configuration, Z0 = 50 Ohms

F (GHz)	S11 Mag	S11 Ang	S21 Mag	S21 Ang	S12 Mag	S12 Ang	S22 Mag	S22 Ang
0.100	1.004	-1.290	0.008	86.770	0.008	86.770	0.995	-1.240
0.200	1.004	-2.610	0.015	86.680	0.015	86.680	0.997	-2.500
0.300	1.005	-3.970	0.023	85.550	0.023	85.550	0.996	-3.760
0.400	1.006	-5.310	0.031	84.170	0.031	84.170	0.995	-4.970
0.500	1.006	-6.600	0.039	82.860	0.039	82.860	0.995	-6.210
0.600	1.007	-7.970	0.046	81.610	0.046	81.610	0.994	-7.410
0.700	1.006	-9.290	0.054	80.220	0.054	80.220	0.993	-8.660
0.800	1.006	-10.630	0.061	79.000	0.061	79.000	0.993	-9.880
0.900	1.005	-11.980	0.069	77.790	0.069	77.790	0.992	-11.090
1.000	1.005	-13.270	0.076	76.530	0.076	76.530	0.993	-12.300
1.100	1.003	-14.610	0.084	75.230	0.084	75.230	0.993	-13.520
1.200	1.000	-15.920	0.091	73.910	0.091	73.910	0.992	-14.740
1.300	1.000	-17.180	0.099	72.610	0.099	72.610	0.992	-15.990
1.400	1.002	-18.470	0.106	71.270	0.106	71.270	0.994	-17.220
1.500	0.998	-19.780	0.113	70.000	0.113	70.000	0.988	-18.440
1.600	0.997	-21.070	0.120	68.650	0.120	68.650	0.987	-19.660
1.700	0.999	-22.520	0.127	67.400	0.127	67.400	0.987	-21.040
1.800	0.996	-23.660	0.134	66.170	0.134	66.170	0.983	-22.020
1.900	0.996							

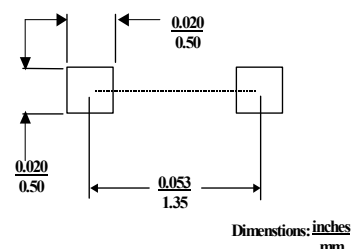
## Mounting Information

The illustration indicates the recommended mounting pad configuration for the SC-79 package. Solder paste containing flux should be screened onto the pads to a thickness of 0.005-0.007 inches. The plastic package is placed in position, firmly adhering to the solder paste.

Permanent attachment is performed by a reflow soldering procedure during which the tab temperature does not exceed +275 °C and the body temperature does not exceed +260 °C.

**Please refer to Application Note M538 for surface mounting instructions.**

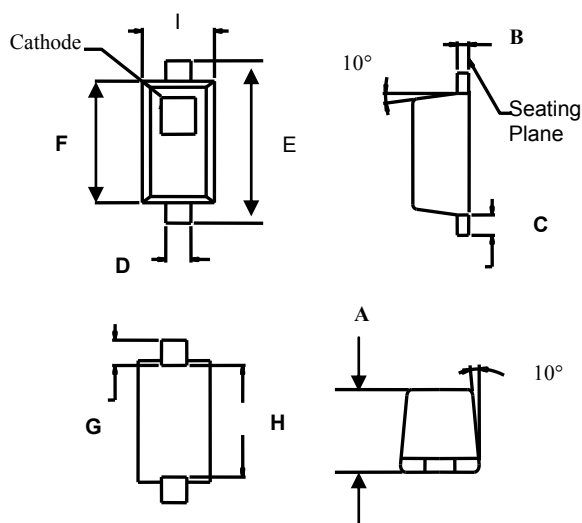
## SC-79



## Case Styles (Cont'd)

### SC-79

#### Case Style 1279



## SC-79 (Case Style 1279)

DIM.	INCHES		MILLIMETERS	
	MIN.	MAX.	MIN.	MAX.
A	0.020	0.028	0.51	0.71
B	0.003	0.008	0.08	0.20
C	0.006	0.010	0.15	0.25
D	0.010	0.014	0.25	0.36
E	0.059	0.067	1.50	1.70
F	0.043	0.051	1.09	1.30
G	0.011	0.012	0.28	0.30
H	0.037	0.043	0.94	1.09
I	0.027	0.035	0.69	0.89

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