

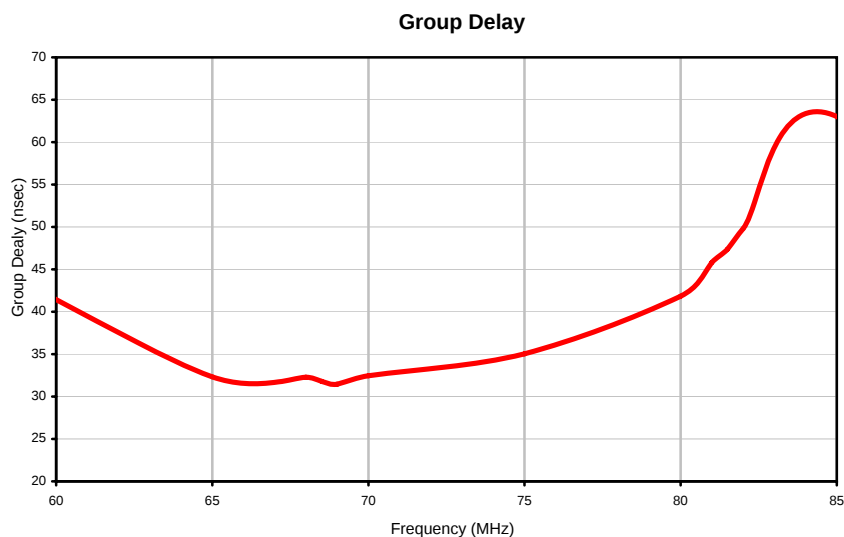
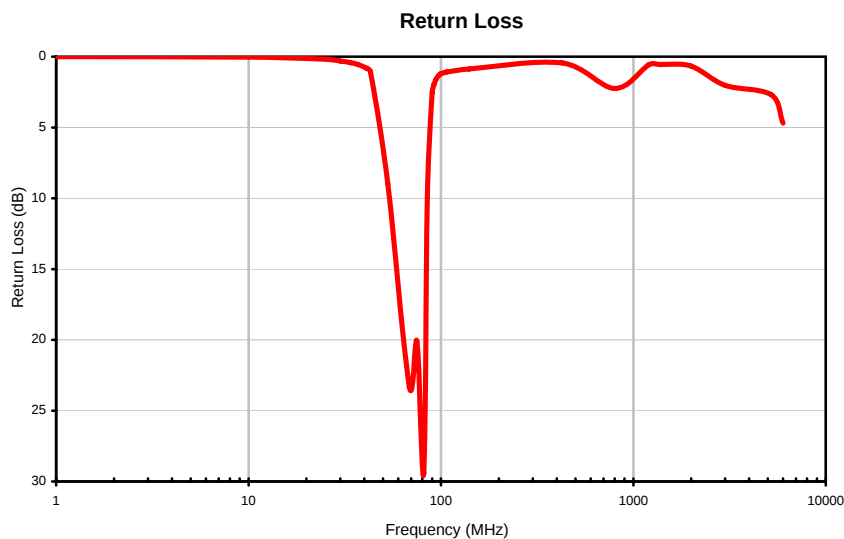
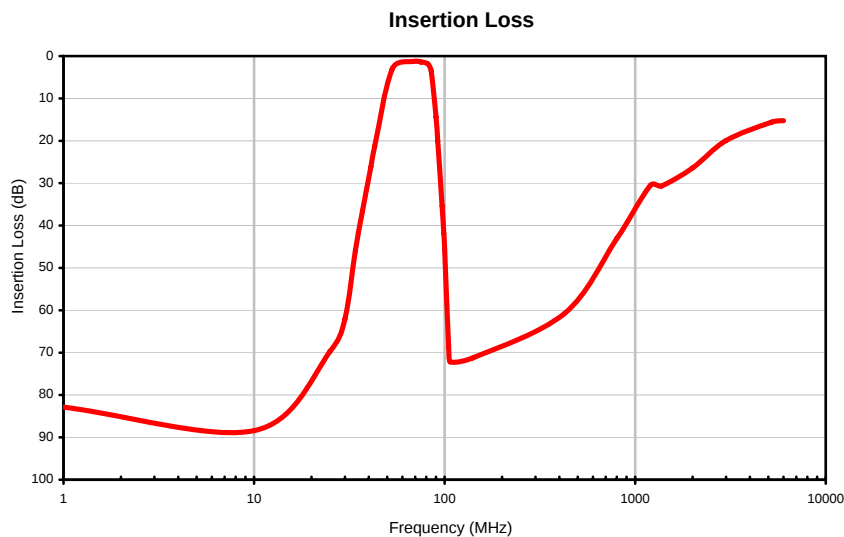
Typical Performance Data

FREQUENCY (MHz)	INSERTION LOSS (dB)	RETURN LOSS (dB)	FREQUENCY (MHz)	GROUP DELAY (nsec)
1.00	82.86	0.00	1.00	8.96
10.00	88.41	0.03	10.00	0.84
25.00	69.70	0.18	25.00	17.51
30.00	62.00	0.30	41.00	29.39
34.00	45.93	0.43	50.00	55.42
37.00	36.66	0.55	65.00	32.32
41.00	26.15	0.82	68.00	32.29
43.00	21.27	1.05	68.50	31.79
53.00	3.05	9.00	69.00	31.46
68.50	1.27	23.31	70.00	32.45
75.00	1.40	20.11	75.00	35.03
81.50	1.81	29.40	80.00	41.83
85.00	3.50	9.91	81.00	45.82
90.00	14.35	2.56	81.50	47.37
92.00	20.14	1.97	82.00	49.81
94.00	26.07	1.62	85.00	63.01
97.00	35.36	1.35	95.00	28.04
99.00	41.87	1.23	100.00	30.51
100.00	45.43	1.20	107.00	28.10
105.00	68.67	1.10	120.00	20.97
107.00	72.17	1.09	200.00	1.83
140.00	71.28	0.87	400.00	1.03
425.00	60.81	0.44	1000.00	3.07
800.00	43.03	2.25	1300.00	0.49
1200.00	30.55	0.58	1400.00	0.47
1375.00	30.68	0.55	2000.00	0.42
2000.00	26.41	0.67	3000.00	0.08
3000.00	19.93	2.02	4000.00	0.42
5200.00	15.58	2.67	5000.00	0.49
6000.00	15.27	4.68	6000.00	0.43

Typical Performance Data

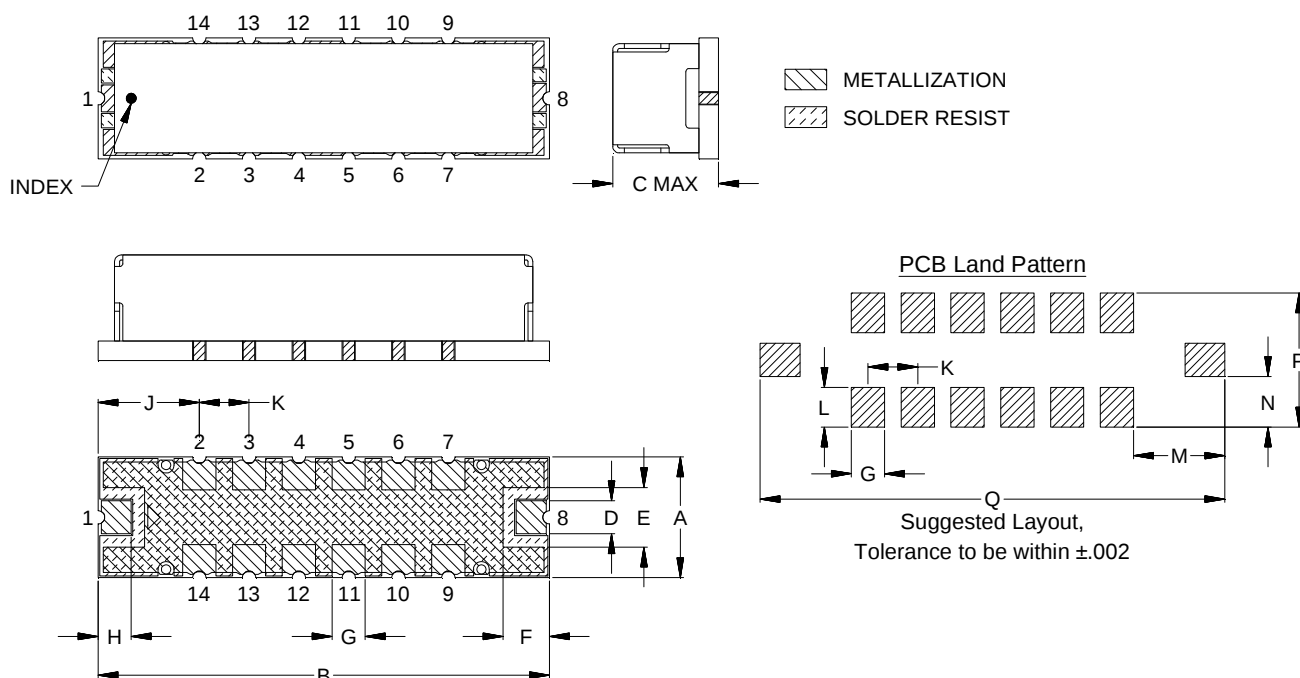
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Typical Performance Curves



Outline Dimensions

HQ1157



CASE#	A	B	C	D	E	F	G	H	J	K	L	M
HQ1157	.365 (9.27)	1.360 (34.54)	.350 (8.89)	.100 (2.54)	.180 (4.57)	.140 (3.56)	.100 (2.54)	.100 (2.54)	.305 (7.75)	.150 (3.81)	.120 (3.05)	.275 (6.99)

CASE#	N	P	Q	WT.GRAM
HQ1157	.152 (3.87)	.405 (10.29)	1.400 (35.56)	4.0

Dimensions are in inches (mm). Tolerances: 2Pl. ± .03; 3Pl. ± .015

Notes:

- Case material: Nickel-Silver alloy.
- Base: Printed wiring laminate.
- Termination finish:
For RoHS Case Styles: 3-5 μ inch (.08-.13 microns) Gold over 120-240 μ inch (3.05-6.10 microns) Nickel plate.
For RoHS-5 Case Styles: Tin-Lead plate.

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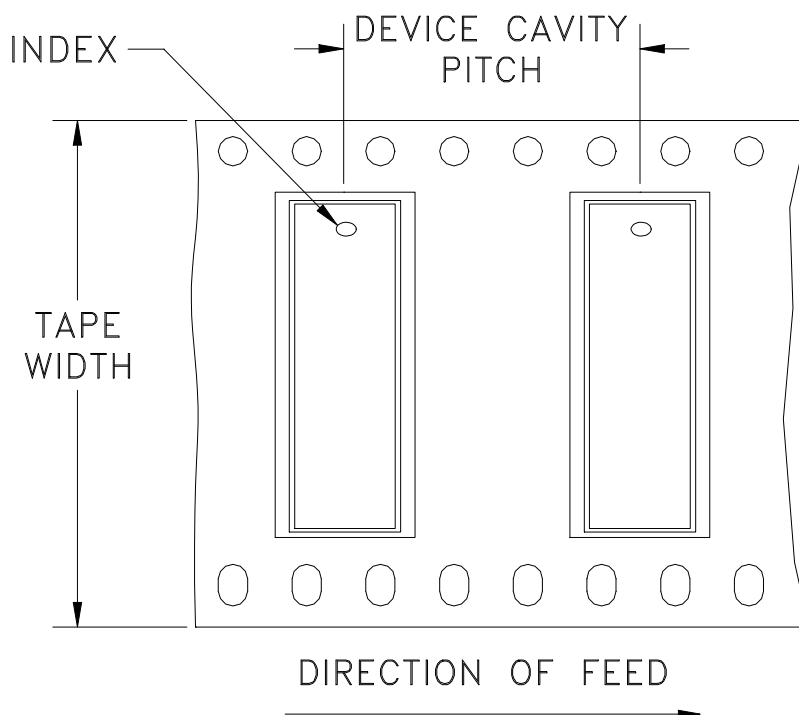


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RF/IF MICROWAVE COMPONENTS

Tape & Reel Packaging TR-F83

DEVICE ORIENTATION IN T&R



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56	16	13	100

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All Mini-Circuits products are manufactured under exacting quality assurance and control standards, and are capable of meeting published specifications after being subjected to any or all of the following physical and environmental test.

Specification	Test/Inspection Condition	Reference/Spec
Operating Temperature	-40° to 85° C Ambient Environment	Individual Model Data Sheet
Storage Temperature	-65° to 150° C Ambient Environment	Individual Model Data Sheet
Autoclave	15 psig, 100% RH, 121°C, 96 hours	JESD22-A102-C, Condition C
Temperature Cycling	-65° to 150°C, 100 cycles	JESD22-A104
Temperature Humidity	85°C/ 85% RH, 168 hours	JESD22-113
Solder Reflow Heat	Sn-Pb Eutetic Process: 240°C peak Pb-Free Process: 260°C peak	J-STD-020, Table 4-1, 4-2 and 5-2; Figure 5-1
Moisture Sensitivity: Level 1	Bake at 125°C for 24 hours Soak at 85°C/85% RH for 168 hours, Reflow 3 cycles at 240°C peak (Non-RoHS) or 260°C (RoHS)	J-STD-020
Solderability	10X magnification, 95% coverage	JESD22-B102, Method 1: Dip and Look Test
Mechanical Shock	50g, 11 ms, 1/2-sine, 18 shocks: 3 each direction, each of 3 axes	MIL-STD-202, Method 213, Condition A
Vibration (High Frequency)	20g peak, 10-2000 Hz, 12 times in each of three perpendicular directions (total 36)	MIL-STD-202, Method 204, Condition D