Surface Mount

Low Pass Filter

SALF-490+
SALF-490

50Ω DC to 490 MHz

CASE STYLE: YY101
PRICE: $6.95 ea. QTY (1-9)

+ RoHS compliant in accordance with EU Directive (2002/95/EC)

The +Suffix identifies RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications.

Maximum Ratings

Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
Power Input	0.5W max.

Pin Connections

INPUT	1
OUTPUT	8
GROUND	2,3,4,5,6,7

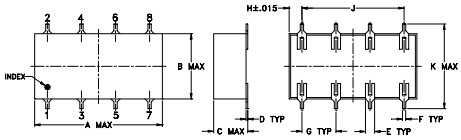
Features

- 7-section elliptic function
- excellent rejection

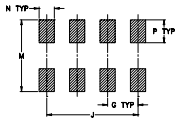
Applications

- defense communications
- receivers/transmitters
- harmonic rejection of VCOs

Outline Drawing



PCB Land Pattern



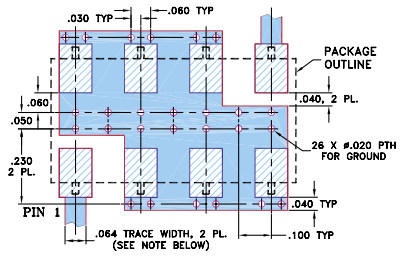
Suggested Layout,
Tolerance to be within ±.002

Outline Dimensions (inch / mm)

A	B	C	D	E	F	G
.75	.38	.20	.010	.050	.020	.200
19.05	9.65	5.08	0.25	1.27	0.51	5.08

H	J	K	M	N	P	wt
.075	.600	.450	.470	.100	.150	grams
1.91	15.24	11.43	11.94	2.54	3.81	1.6

Demo Board MCL P/N: TB-187+
Suggested PCB Layout (PL-049)



NOTES: 1. TRACE WIDTH IS SHOWN FOR ROGERS RO4350B WITH DIELECTRIC THICKNESS .030" ± .002"; COPPER: 1/2 OZ. EACH SIDE. FOR OTHER MATERIALS TRACE WIDTH MAY NEED TO BE MODIFIED.
2. BOTTOM SIDE OF THE PCB IS CONTINUOUS GROUND PLANE.

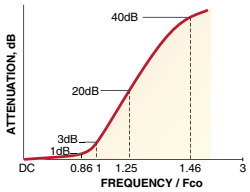
DENOTES PCB COPPER LAYOUT WITH SMOBC (SOLDER MASK OVER BARE COPPER)

DENOTES COPPER LAND PATTERN FREE OF SOLDER MASK

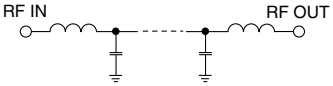
Low Pass Filter Electrical Specifications

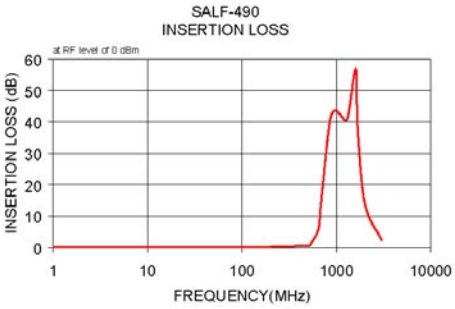
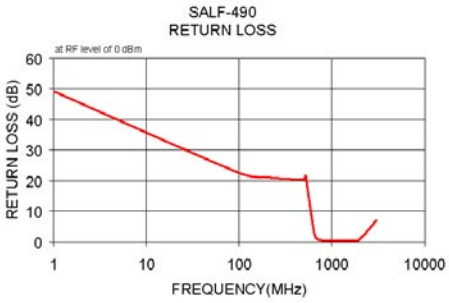
PASSBAND (MHz)	fco, (MHz) Nom.	STOPBAND (MHz)		VSWR (:1)	
(loss <1 dB)	(loss 3 dB) Typ.	(loss > 20 dB) Min.	(loss > 35 dB) Min.	Pass band typ.	Stop band typ.
DC-490	620	800-900	900-1600	1.3	18

typical frequency response



Electrical Schematic



Typical Performance Data

Frequency (MHz)	Insertion Loss (dB) x̄	σ	Return Loss (dB)
1.00	0.03	0.00	49.08
100.00	0.14	0.00	22.43
200.00	0.22	0.00	20.99
490.00	0.57	0.02	20.32
510.00	0.63	0.03	21.11
520.00	0.66	0.03	21.39
640.00	5.50	0.53	3.04
680.00	12.81	0.71	1.06
720.00	20.36	0.74	0.63
780.00	30.90	0.71	0.44
800.00	33.75	0.68	0.44
850.00	40.14	0.53	0.38
900.00	42.75	0.36	0.35
980.00	43.66	0.39	0.34
1070.00	42.74	0.45	0.34
1300.00	40.82	0.51	0.34
1600.00	56.89	3.08	0.31
1675.00	38.48	0.85	0.32
2000.00	13.88	0.55	0.78
3000.00	2.38	0.20	6.81