

Surface Mount Amplifier

RAMP-31-1+

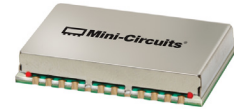
50Ω 1.5 to 30 MHz

Features

- Single +12V operation
- Excellent gain flatness, ±0.2 dB typ. usable to 70 MHz
- Output power up to +30 dBm typ.
- Small size

Applications

- Buffer amplifier
- Driver amplifier
- HF communications
- Lab, instrumentation, test equipment



Case Style: BL1543-1

+RoHS Compliant

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

Electrical Specifications at 25°C

Parameter	Condition (MHz)	Min.	Typ.	Max.	Units
Frequency Range		1.5		30	MHz
Gain	1.5 - 30	28		31	dB
Gain Flatness	1.5 - 30		±0.2	±1.0	dB
Output Power at 1dB compression	1.5 - 30	27	30	—	dBm
Output third order intercept point IP3	1.5 - 30	40.5**	42*	—	dBm
Noise Figure	10 - 30	—	5.5	7.0	dB
Input VSWR	1.5 - 30	—	—	2.0	:1
Output VSWR	1.5 - 30	—	—	2.0	:1
DC Supply Voltage		11.75	12.0	12.25	V
Supply Current		—	310	325	mA

* At 25°C with power out of each tone at 17 dBm

** -40° to 90°C with power out of each tone at 17 dBm

Maximum Ratings

Parameter	Ratings
Operating Temperature	-40°C to 90°C
Storage Temperature	-55°C to 100°C
DC Voltage	13V
Input RF Power (no damage)	5 dBm

Permanent damage may occur if any of these limits are exceeded.

Pad Connections

Function	Pad Number
RF IN	1
RF OUT	12
DC INPUT	18
GROUND	All others and bottom pad

ESD Rating

ESD Class 1A 250 to <500V in accordance with JS-001-2014

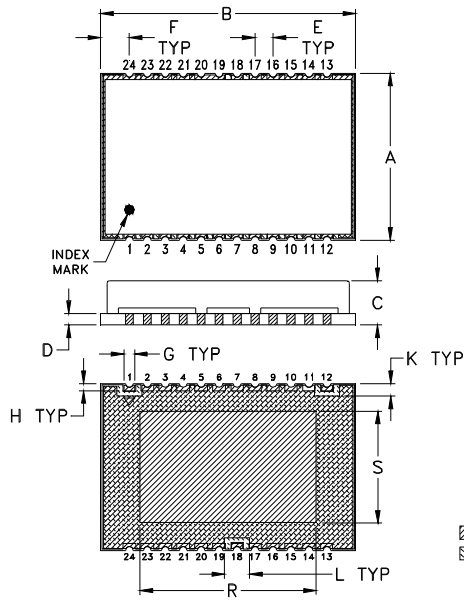
Moisture Sensitivity: MSL3 in accordance with IPC/JEDECJ-STD-020C

Notes

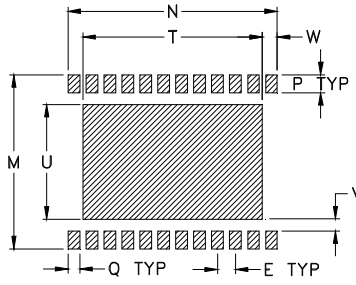
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Outline Drawing



PCB Land Pattern



SUGGESTED LAYOUT,
TOLERANCE TO BE WITHIN ± 0.002

 DENOTES METALLIZATION
 DENOTES SOLDER RESIST

Outline Dimensions (inch)

A	B	C	D	E	F	G	H	J	K	L
.93	1.42	.25	.063	.100	.160	.060	.040	--	.070	.140
23.62	36.07	6.35	1.60	2.54	4.06	1.52	1.02	--	1.78	3.56
M	N	P	Q	R	S	T	U	V	W	wt
.970	1.165	.100	.065	.980	.620	1.0	.640	.065	.083	grams
24.64	29.59	2.54	1.65	24.89	15.75	25.40	16.26	1.65	2.11	6.5

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