



Mini-Circuits®

DESIGNER'S KIT K1-ERASM+

Wideband Amplifiers

50Ω DC to 8 GHz



FEATURES

- Wideband, 50 Ω
- Up to 13.0 dBm typ. output power
- Low thermal resistance
- Miniature microwave amplifier
- Plastic micro-x surface mount package
- Usable to 10 GHz

MINI-CIRCUITS DESIGNER'S KITS
SPEED UP
THE SOLUTION



Evaluation boards available.
See individual model data sheets



K1-ERASM+ ELECTRICAL SPECIFICATIONS

(kit includes 3 models, 10 of each, 30 total)

Model	Freq. ¹ (GHz)	Gain (dB) Typical									Maximum Power (dBm) @ 2 GHz			Dynamic Range @ 2 GHz		VSWR (:1) Typ.				Absolute Max. Rating ²		DC ³ Operating Power @ pin 3				Therm. Resist.	Evaluation Board
		Over frequency, GHz									Output (1dB Compr.)		Input ¹ NF (dB) Typ.	IP3 (dBm) Typ.	In DC-3 GHz	In 3-f _u GHz	Out DC-3 GHz	Out 3-f _u GHz	I (mA)	P (mW)	Current		Device Volt.		θ _{jc} Typ. °C/W		
		f _L -f _U	0.1	1	2	3	4	6	8	Min @ 2 GHz	Typ.	Min															
																					Typ.	Min	Typ.	Typ.		Typ.	
ERA-1SM+	DC-8	12.3	12.1	11.8	10.9	9.7	7.9	8.2	9	12.0	10.0	15	4.3	26	1.5	1.8	1.5	1.9	75	330	40	3.4	3.0	4.1	183	TB-408-1+	
ERA-2SM+	DC-6	16.2	15.8	15.2	14.4	13.1	11.2	-	13	13.0	11.0	15	4.0	26	1.3	1.4	1.2	1.6	75	330	40	3.4	3.0	4.1	160	TB-408-2+	
ERA-3SM+	DC-3	22.1	21.0	18.7	16.8	-	-	-	16	12.5	9	13	3.5	25	1.5	-	1.4	-	75	330	35	3.2	3.0	4.1	186	TB-408-3+	

1. Low frequency cutoff determined by external coupling capacitors. f_u is the upper frequency limit for each model.

2. Permanent damage may occur if any of these limits are exceeded. These ratings are not intended for continuous normal operation.

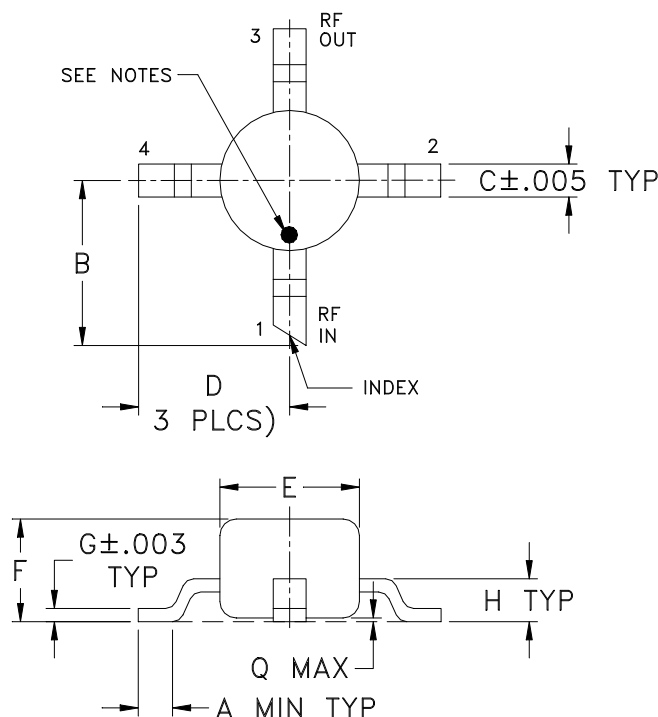
3. Supply voltage must be connected to pin 3 through a bias resistor in order to prevent damage. See "Biasing MMIC Amplifiers" at minicircuits.com/applications.shtml. Reliability predictions are applicable at specified current and normal operating conditions.

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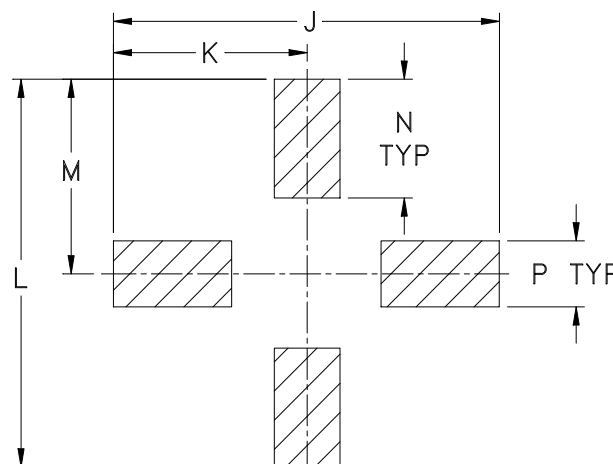
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REV. C
ECO-009046
M106033
K1-ERASM+
MCL NY
080221

Outline Dimensions



PCB Land Pattern



Suggested Layout,
Tolerance to be within $\pm .002$

CASE#	A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q	WT. GRAMS
WW107	.012 (0.30)	.10 (2.54)	.020 (0.51)	.092 (2.34)	.085 (2.16)	.060 (1.52)	.007 (0.18)	.026 (0.66)	.235 (5.97)	.118 (3.00)	.235 (5.97)	.118 (3.00)	.072 (1.83)	.040 (1.02)	.020 (0.51)	.015

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

Notes:

- Case material: Plastic.
- Termination finish:
For RoHS Case Styles: Matte tin Plate.
For RoHS-5 Case Styles: Tin-Lead plate.
- RF input termination (1) identified by one or both of the following at factory option:
 - diagonally cut termination, which may be 45° (ref) in either direction;
 - orientation mark on the case. Model dash number is identified by color dot or alphanumeric code on case. See specification data sheet.



INTERNET <http://www.minicircuits.com>

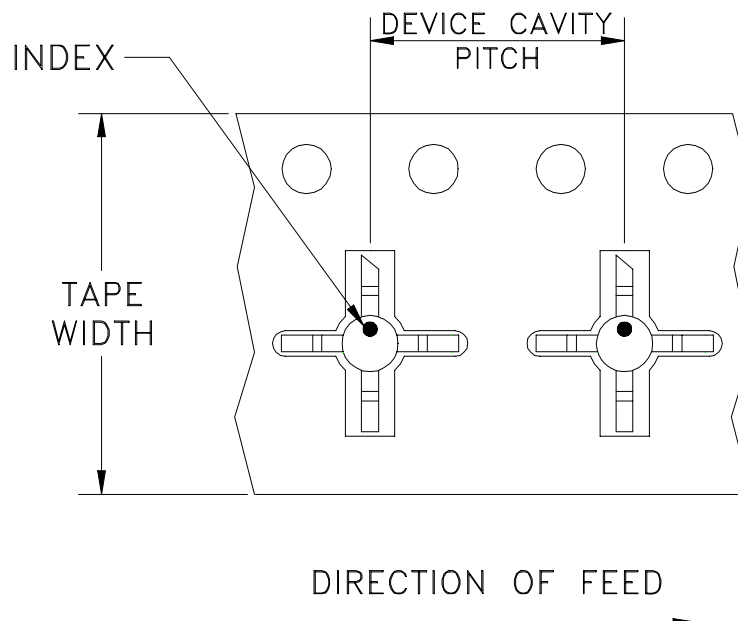
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Mini-Circuits ISO 9001 & ISO 14001 Certified

Tape & Reel Packaging TR-F4

DEVICE ORIENTATION IN T&R



Tape Width, mm	Device Cavity Pitch, mm	Reel Size, inches	Devices per Reel	
12	8	7	Small quantity standards (see note)	20
				50
				100
				200
				500
		7	Standard	1000

Note: Please Consult individual model data sheet to determine device per reel availability.

Mini-Circuits carrier tape materials provide protection from ESD (Electro-Static Discharge) during handling and transportation. Tapes are static dissipative and comply with industry standards EIA-481/EIA-541.

Go to: www.minicircuits.com/pages/pdfs/tape.pdf



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