DESIGNER'S KIT K3-ERASM+

# Wideband Amplifiers

50Ω DC to 4 GHz



## FEATURES

- Wideband, 50 Ω
- Up to +18.4 dBm typ. output power
- Low thermal resistance
- Miniature microwave amplifier
- Plastic micro-x surface mount package

MINI-CIRCUITS DESIGNER'S KITS SPEED UP THE SOLUTION

RoHS COMPLIANT

*Evaluation boards available.*
*See individual model data sheets.*



## K3-ERASM+ ELECTRICAL SPECIFICATIONS

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

| Model | Freq.[1] (GHz) | Gain (dB) Typical | | | | | | Maximum Power (dBm) @ 1 GHz | | | Dynamic Range @ 1 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] | | | In DC-3 | In 3-$f_U$ | Out DC-3 | Out 3-$f_U$ | | | Current | Device Volt. | | | øjc Typ. °C/W | |
| | $f_L$-$f_U$ | 0.1 | 1 | 2 | 3 | 4 | Min @ 2 GHz | Typ. | Min | | NF (dB) Typ. | IP3 (dBm) Typ. | GHz | GHz | GHz | GHz | I (mA) | P (mW) | (mA) | Typ. | Min. | Max | | |
| ERA-4SM+ | DC-4 | 14.3 | 14.0 | 13.4 | 12.7 | 11.8 | 11 | 17.3 | 15.0 | 20.0 | 4.2 | 34.0 | 1.2 | 1.2 | 1.3 | 1.8 | 120 | 650 | 65 | 4.5 | 4.2 | 5.5 | 196 | TB-408-4+ |
| ERA-5SM+ | DC-4 | 20.2 | 19.5 | 17.6 | 15.6 | 14.0 | 16 | 18.4 | 16.5 | 13.0 | 4.3 | 32.5 | 1.3 | 1.3 | 1.2 | 1.3 | 120 | 650 | 65 | 4.9 | 4.2 | 5.5 | 133 | TB-408-5+ |
| ERA-6SM+ | DC-4 | 12.6 | 12.5 | 12.2 | 11.7 | 11.3 | 10.5 | 17.9 | 16.0 | 20.0 | 4.5 | 36.0 | 1.3 | 1.2 | 1.6 | 1.8 | 120 | 650 | 70 | 5.0 | 4.6 | 5.6 | 143 | TB-408-6+ |

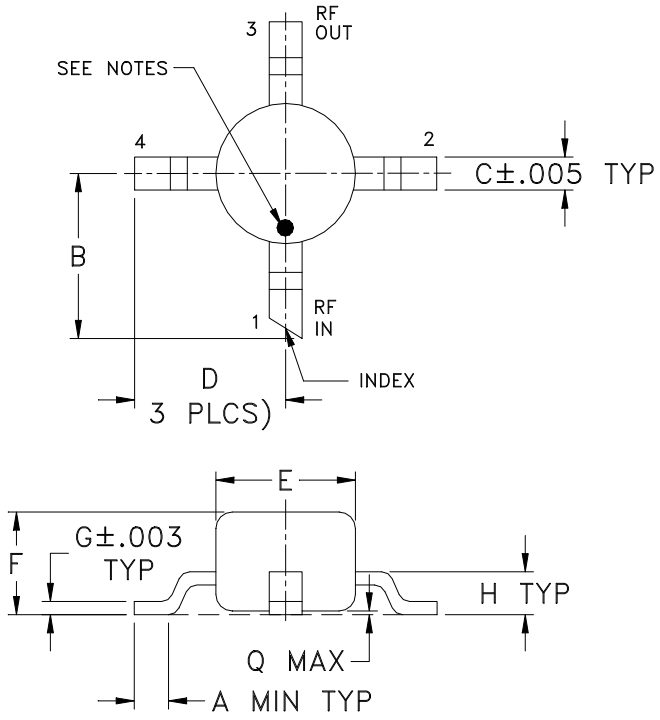
1. Low frequency cutoff determined by external coupling capacitors. $f_U$ is the upper frequency limit for each model.
2. Permanent damage may occur if any of these limits are exceeded. These ratings are not intended for continuous normal operation.
3. Supply voltage must be connected to pin 3 through a bias resistor in order to prevent damage. See "Biasing MMIC Amplifiers" at minicircuits.com/applications.shtml.
Reliabilitypredictions are applicable at specified current and normal operating conditions.

REV. A
ECO-009046
M106033
K3-ERASM+
MCL NY
080221

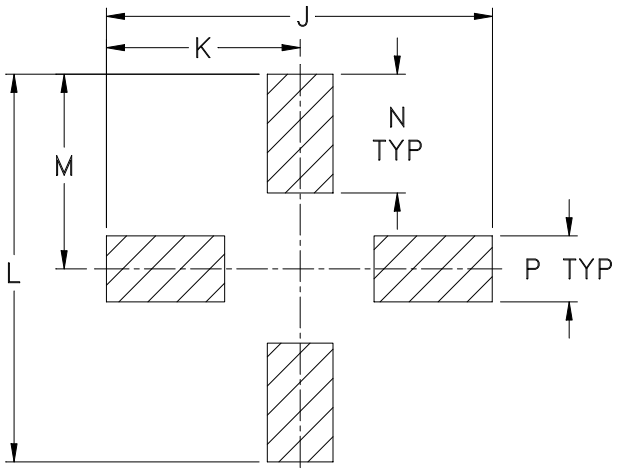
# Case Style WW

**WW107**

## Outline Dimensions




### PCB Land Pattern




Suggested Layout,
Tolerance to be within ±.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. ± .03; 3 Pl. ± .015**

**Notes:**

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

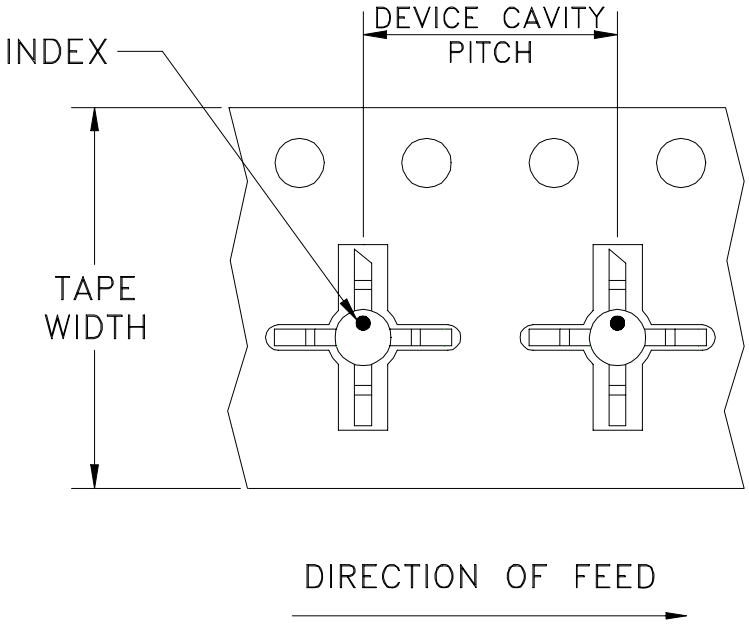

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# Tape & Reel Packaging TR-F4

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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