

# Surface Mount Frequency Multiplier

Output 20 to 2000 MHz

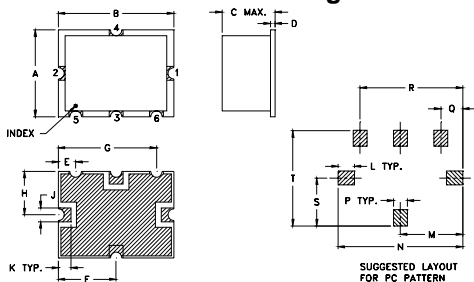
## Maximum Ratings

|                       |                |
|-----------------------|----------------|
| Operating Temperature | -40°C to 85°C  |
| Storage Temperature   | -55°C to 100°C |

## Pin Connections

|             |   |
|-------------|---|
| INPUT       | 2 |
| OUTPUT      | 1 |
| GROUND      | 4 |
| CASE GROUND | 4 |
| NOTUSED     | 3 |

## Outline Drawing



## Outline Dimensions (inch)

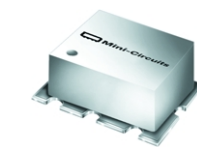
| A    | B     | C    | D     | E    | F    | G     | H    | J     |       |
|------|-------|------|-------|------|------|-------|------|-------|-------|
| .375 | .500  | .23  | .020  | .075 | .250 | .425  | .187 | .050  |       |
| 9.53 | 12.70 | 5.84 | 0.51  | 1.91 | 6.35 | 10.80 | 4.75 | 1.27  |       |
| K    | L     | M    | N     | P    | Q    | R     | S    | T     | wt.   |
| .050 | .070  | .270 | .540  | .060 | .095 | .445  | .208 | .415  | grams |
| 1.27 | 1.78  | 6.86 | 13.72 | 1.52 | 2.41 | 11.30 | 5.28 | 10.54 | .8    |

## Features

- wideband, 20 to 2000 MHz
- low conversion loss, 10.5 dB typ

## Applications

- synthesizers
- local oscillators



CASE STYLE: TTT167  
PRICE:\$29.95 ea. QTY (1-9)

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

See our web site for RoHS Compliance methodologies  
and qualifications.

## Frequency Multiplier Electrical Specifications at 25°C

| MODEL NO. | MULTIPLICATION FACTOR | FREQUENCY (MHz) |           | INPUT POWER (dBm) |      | CONVERSION LOSS (dB) |      | *HARMONIC OUTPUT (dBc) |              |              |    |    |    |
|-----------|-----------------------|-----------------|-----------|-------------------|------|----------------------|------|------------------------|--------------|--------------|----|----|----|
|           |                       | Input           | Output    | Min.              | Max. | Typ.                 | Max. | F1 Typ. Min.           | F3 Typ. Min. | F4 Typ. Min. |    |    |    |
| SYK-2R(+) | 2                     | 10-500          | 20-1000   | 12                | 16   | 10.5                 | 14.0 | 35                     | 25           | 42           | 25 | 20 | 10 |
|           |                       | 500-1000        | 1000-2000 | 12                | 16   | 11.5                 | 16.0 | 32                     | 20           | 37           | 20 | 20 | 10 |

\*Harmonic output below power level of F2

## Typical Performance Data at 25°C

| Output Frequency (MHz) | Conversion Loss (dB) | Harmonic Output (-dBc) |        |        |
|------------------------|----------------------|------------------------|--------|--------|
|                        |                      | F1                     | F3     | F4     |
| 20.00                  | 10.70                | -42.42                 | -46.82 | -16.42 |
| 70.00                  | 10.18                | -53.30                 | -62.08 | -17.36 |
| 130.00                 | 10.10                | -53.60                 | -56.32 | -18.56 |
| 200.00                 | 10.39                | -51.67                 | -53.85 | -17.49 |
| 500.00                 | 10.46                | -42.71                 | -50.14 | -18.94 |
| 1000.00                | 10.81                | -36.79                 | -42.16 | -16.36 |
| 1500.00                | 11.14                | -28.68                 | -36.07 | -18.60 |
| 1700.00                | 11.78                | -26.29                 | -31.08 | -17.82 |
| 1900.00                | 11.83                | -25.85                 | -29.19 | -19.43 |
| 2000.00                | 11.61                | -25.54                 | -30.74 | -21.25 |

