

250mW
 SURFACE MOUNT 50 ohm
 RF ATTENUATORS
 RFA1206



Features and Applications

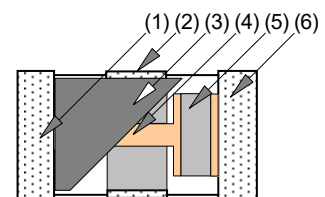
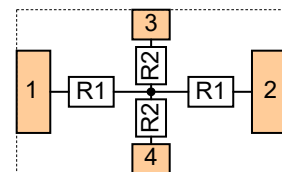
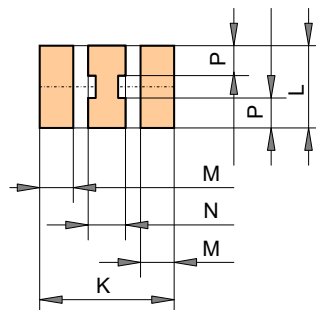
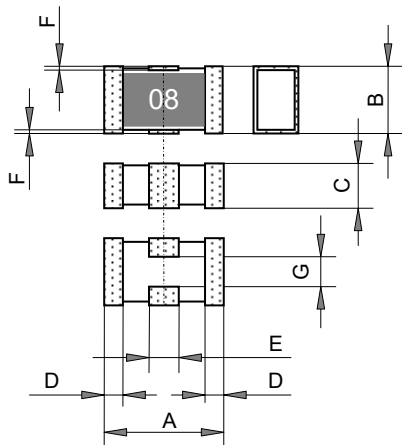
Small size (1206), high performance, balanced attenuator.
 6db, 8db, 10db, 20db are available.
 250mW power handling.
 50 ohm characteristic impedance and wide frequency range
 Dc to 5.0GHz.

Pb free, RoHS compliant and BeO free configuration.

Long life and temperature stability by thin film technology

Applications include power detect circuit of isolator, gain control circuits, isolation circuits of power boost amplifiers at GHz, loss compensation of transmission line of data communication systems, detecting signal control of ATE-LSI test system-circuit board functional test systems, industrial measurement electronics, medical scientific electronics and aero space.

Dimensions, Materials, Foot Pattern and Pin#

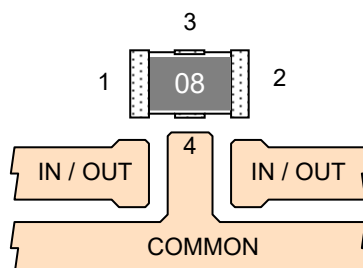


| | inch | mm | Tol (mm) |
|---|---------|--------|----------|
| A | 0.126 | 3.20 | +/-0.08 |
| B | 0.063 | 1.60 | +/-0.08 |
| C | 0.025 | 0.63 | +/-0.08 |
| D | 0.020 | 0.51 | +/-0.08 |
| E | 0.032 | 0.81 | +/-0.08 |
| F | 0.009 | 0.23 | +/-0.08 |
| G | (0.032) | (0.81) | +/-0.08 |

| | inch | mm | Tol (mm) |
|---|-------|------|----------|
| K | 0.142 | 3.60 | +/-0.08 |
| L | 0.079 | 2.00 | +/-0.08 |
| M | 0.036 | 0.90 | +/-0.08 |
| N | 0.039 | 1.00 | +/-0.08 |
| P | 0.031 | 0.80 | +/-0.08 |

| | Substances | Materials |
|-----|--------------------|---------------------|
| (1) | Input Conductor | Cu-Ni-Tin plating |
| (2) | Side Conductor | Cu-Ni-Tin plating |
| (3) | Passivation | Epoxy resin |
| (4) | Inside Conductor | Ni-Cr Cu sputtering |
| (5) | Thin Film Resistor | Ni-Cr alloy |
| (6) | Output Conductor | Cu-Ni-Tin plating |

Note: Side conductor is build on ALN substrate and sputtering Ni-Cr, sputtering Cu, electro-plated Ni, electro-plated Tin.



Note: When soldering this resistor, please use SAC solder containing 3% silver. If you use low silver solder, copper diffusion may occur and the terminals happen to break.

SURFACE MOUNT RF ATTENUATORS, 250mW

RFA1206

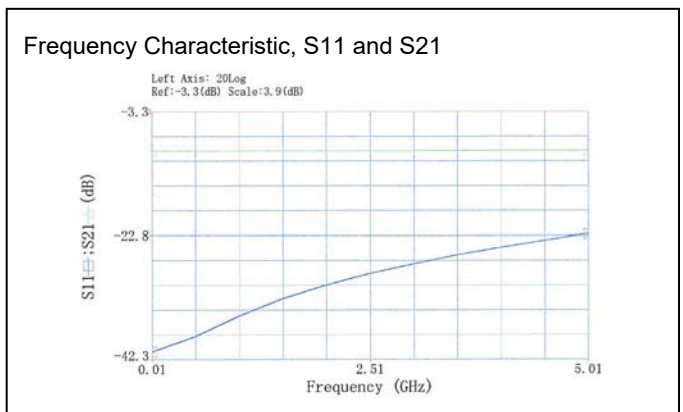
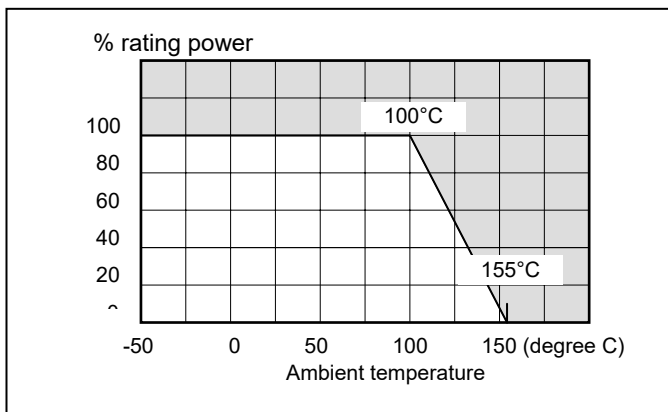
Ordering Information

| | | | | |
|---------|-----|-------------|------|---------------|
| Type | --- | Attenuation | Code | Note |
| RFA1206 | --- | 20dB | Z01 | |
| RFA1206 | --- | 6dB | Z00 | Bulk |
| | | 8dB | Z01 | Tape and reel |
| | | 10dB | | |
| | | 20dB | | |

Specifications and Performances

| Items | Specifications | Conditions |
|--------------------------|----------------------|--|
| Attenuation | 6db, 8db, 10db, 20db | |
| Attenuation tolerance | +/-0.4dB | Output DC volt in terminating out put with resistor when stable 1V DC volt source connect to input. |
| Characteristic Impedance | 50 Ohms | |
| Tolerance of Impedance | +/- 2% | Input DC resistance in terminating output with resistor. |
| TC of Impedance | +/- 50ppm/°C | TC of input DC resistance in terminating output with resistor. |
| TC of Attenuation | +/- 50ppm/°C | TC of output DC volt in terminating out put with resistor when stable 1V DC volt source connect to input. |
| Rating Power | 250 mW | Input Power |
| Rating Temperature | -55-100 °C | |
| Soldering Heat | +/- 1% | 350C, 3 seconds dipping. |
| Soldering capability | 95% covered | |
| Humidity | +/- 1% impedance | Input DC resistance change Under condition of 40C temp and 90-95%RH, rating power ON-90min, OFF-30min, 1000h |
| Load Life | +/- 1% impedance | Input DC resistance change. Under condition of 70C temp, rating power ON-90min, OFF-30min, 1000h |
| Operating Temperature | -55 °C - +155 °C | |
| Storage Temperature | -55 °C - +80 °C | |

Derating



Note: Transformation: $VSWR = \frac{1+|\Gamma|}{1-|\Gamma|}$ $|\Gamma| = 10^{\frac{S11}{20}}$ $|\Gamma| = \frac{VSWR - 1}{VSWR + 1}$ $S11 = -(-20 \log |\Gamma|)$

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