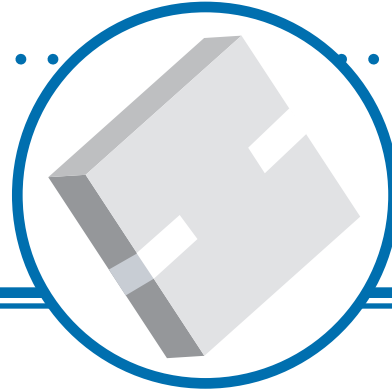


# High Frequency Surface Mount Attenuators

## RFAXXX-0 Series

- RoHS compliant
- Power dissipation up to 150W
- High frequency operation up to 3GHz



The RFAXXX-0 series power attenuator has a low VSWR from DC to 3GHz. High frequency performance combined with high power dissipation make this an ideal RF power attenuator. Typical applications are RF and microwave power amplifiers, RF transmitters, receivers and meters where a reduction in power is needed while maintaining transmission line characteristic impedances.

## Electrical Data

|                             |                     | RFA100-0xx              | RFA150-0xx        |
|-----------------------------|---------------------|-------------------------|-------------------|
| Power Rating @70°C          |                     | 100W (Heatsinked)       | 150W (Heatsinked) |
| Impedance                   |                     | 50Ω                     |                   |
| Frequency Range             |                     | DC - 3GHz               |                   |
| Operating Temperature Range |                     | -55°C to +155°C         |                   |
| Attenuation                 |                     | 20dB, 30dB              |                   |
| Attenuation Tolerance at DC |                     | ±0.4 dB                 |                   |
| Terminations                | Types 010, 020, 030 | Tin (Sn) plated copper  |                   |
|                             | Types 012, 022, 032 | Gold (Au) plated copper |                   |

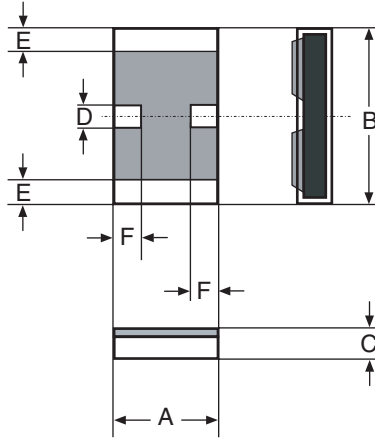
### General Note

IRC reserves the right to make changes in product specification without notice or liability.  
All information is subject to IRC's own data and is considered accurate at time of going to print.

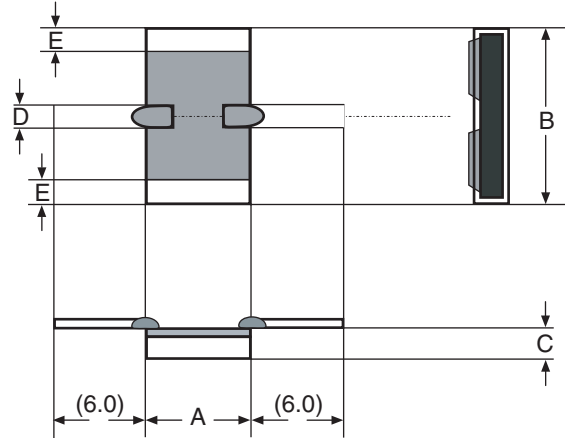
# High Frequency Surface Mount Attenuators

## Physical Data

RFA100 010, RFA100 020, RFA100 030  
RFA150 010, RFA150 020, RFA150 030



RFA100 012, RFA100 022, RFA100 032  
RFA150 012, RFA150 022, RFA150 032



**Dimensions (mm)**

| Model and Type   | A           | B            | C       | D         | E         | F*     |
|------------------|-------------|--------------|---------|-----------|-----------|--------|
| RFA100 010 / 012 | 5.84 ± 0.15 | 8.89 ± 0.15  | 1.1 max | 1.0 ± 0.3 | 0.3 ± 0.1 | (1.5)  |
| RFA100 020 / 022 | 5.84 ± 0.25 | 8.89 ± 0.25  | 1.1 max | 1.0 ± 0.3 | 0.3 ± 0.1 | (1.05) |
| RFA100 030 / 032 | 5.72 ± 0.25 | 8.90 ± 0.25  | 1.1 max | 1.1 ± 0.3 | 0.3 ± 0.1 | (1.1)  |
| RFA150 010 / 012 | 7.62 ± 0.15 | 11.43 ± 0.15 | 1.1 max | 1.0 ± 0.3 | 0.3 ± 0.1 | (1.5)  |
| RFA150 020 / 022 | 7.62 ± 0.25 | 11.43 ± 0.25 | 1.1 max | 1.0 ± 0.3 | 0.3 ± 0.1 | (1.05) |
| RFA150 030 / 032 | 6.35 ± 0.25 | 9.52 ± 0.25  | 1.1 max | 1.1 ± 0.3 | 0.3 ± 0.1 | (1.1)  |

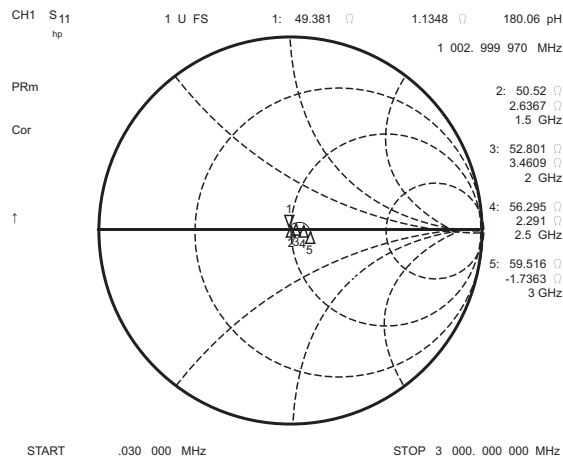
\*Note: Dimension F does not apply to types 012, 022 and 032.

# High Frequency Surface Mount Attenuators

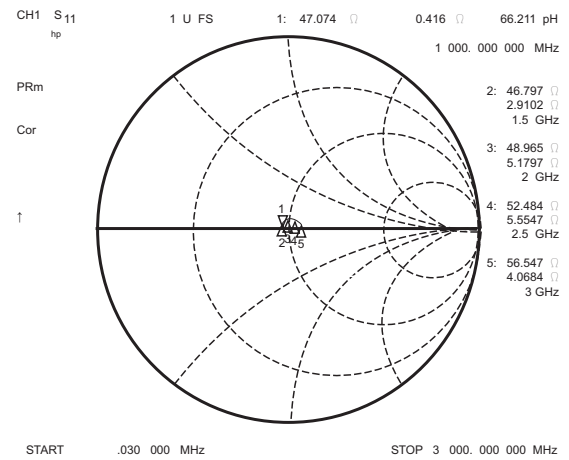


## Frequency Performance Data

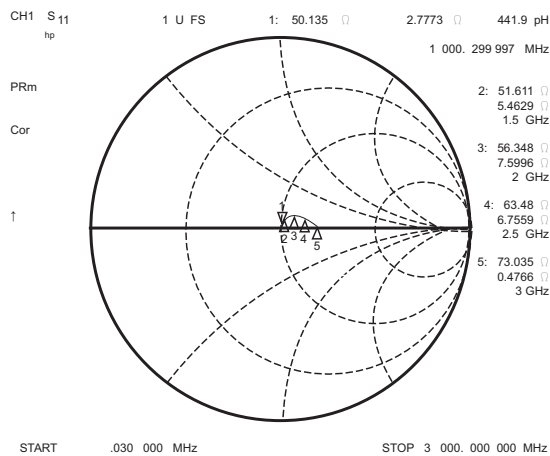
RFA100 030 20DB (S11) Impedance



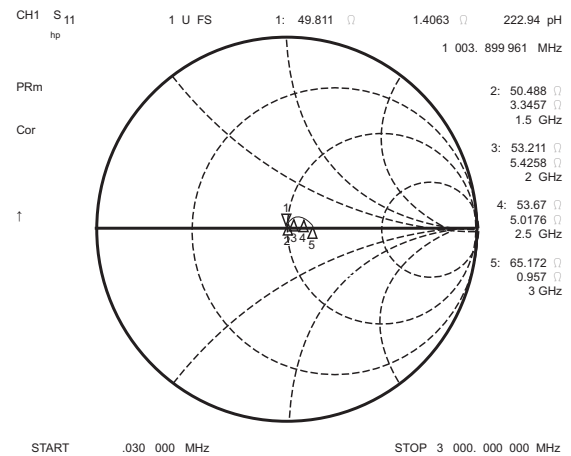
RFA100 030 30DB (S11) Impedance



RFA150 030 20DB Impedance



RFA150 030 30DB Impedance



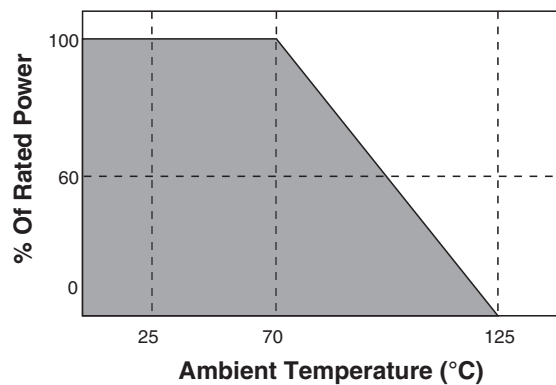
# High Frequency Surface Mount Attenuators



## Environmental Data

|                        | Test Condition             | Maximum       |
|------------------------|----------------------------|---------------|
| Load Life              | 1000 Hours, 70°C           | ±1.0%         |
| Moisture Load Life     | 1000 Hours, 40°C<br>95% RH | ±1.0%         |
| Solder Heat Resistance | 350°C, 3 sec.              | ±1.0%         |
| Solderability          |                            | >95% coverage |

## Power Derating Curve



## Ordering Data

**Prefix** ..... **HFR** - **RFA100LF** - **010** - **20dB**  
**Model** .....  
 RFA100LF; RFA150LF  
**Type** .....  
 010; 020; 030 = Tin plated copper pads  
 012; 022; 032 = Tin plated copper-alloy beam leads  
**Attenuation** .....  
 20dB; 30dB