

Features

- AVAILABLE IN SURFACE MOUNT
- ULTRA-WIDE BANDWIDTH 100-2600 MHz
- HIGH GAIN-TWO STAGES 15 dB (TYP.)
- MEDIUM OUTPUT LEVEL +14 dBm, 2000-2600 MHz (TYP.)

Description

The A36-2 RF amplifier is a discrete hybrid design, which uses thin film manufacturing processes for consistent performance and high reliability.

This 2 stage bipolar transistor feedback amplifier design displays impressive performance over a broadband frequency range. An active DC biasing network insures temperature-stable performance.

Both TO-8 and Surface Mount packages are hermetically sealed, and MIL-STD-883 environmental screening is available

Ordering Information

| Part Number | Package |
|--------------------|----------------------|
| A36-2 | TO-8 |
| SMA36-2 | Surface Mount |
| MAAM-007947-CA3602 | SMA Connectorized ** |

**The connectorized version is not RoHs compliant.

Product Image



Electrical Specifications: $Z_0 = 50\Omega$, $V_{CC} = +15 V_{DC}$

| Parameter | Units | Typical | Guaranteed | |
|---------------------------------|-------|---------------|---------------|----------------|
| | | 25°C | 0° to 50°C | -54° to +85°C* |
| Frequency | MHz | 100-2700 | 100-2600 | 100-2600 |
| Small Signal Gain (min) | dB | 15.0 | 14.0 | 13.0 |
| Gain Flatness (max) | dB | ±0.5 | ±0.8 | ±1.2 |
| Reverse Isolation | dB | 28 | | |
| Noise Figure (max) | dB | 7.0 | 7.5 | 8.0 |
| Power Output @ 1 dB comp. (min) | dBm | 14.0 | 12.5 | 12.0 |
| IP3 | dBm | +30 | | |
| IP2 | dBm | +32 | | |
| Second Order Harmonic IP | dBm | +37 | | |
| VSWR Input / Output (max) | | 1.9:1 / 1.9:1 | 2.1:1 / 2.1:1 | 2.3:1 / 2.3:1 |
| DC Current @ 15 Volts (max) | mA | 63 | 64 | 67 |

Absolute Maximum Ratings

| Parameter | Absolute Maximum |
|--|------------------|
| Storage Temperature | -62°C to +125°C |
| Case Temperature | +125°C |
| DC Voltage | +17 V |
| Continuous Input Power | 10 dBm |
| Short Term Input power (1 minute max.) | 50 mW |
| Peak Power (3 µsec max.) | 0.5 W |
| "S" Series Burn-In Temperature (case) | +125°C |

Thermal Data: $V_{CC} = +15 V_{DC}$

| Parameter | Rating |
|---|---------|
| Thermal Resistance θ_{jc} | 45°C/W |
| Transistor Power Dissipation P_d | 0.426 W |
| Junction Temperature Rise Above Case T_{jc} | +19°C |

* Over temperature performance limits for part number CA36-2, guaranteed from 0°C to +50°C only.

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