

Cascadable Amplifier 10 to 2000 MHz

Rev. V3

Features

- AVAILABLE IN SURFACE MOUNT
- HIGH GAIN-TWO STAGES 16.5 dB (TYP.)
- LOW VSWR <1.5:1 (TYP.)
- MEDIUM OUTPUT LEVEL +12 dBm (TYP.)

Description

The A36 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.

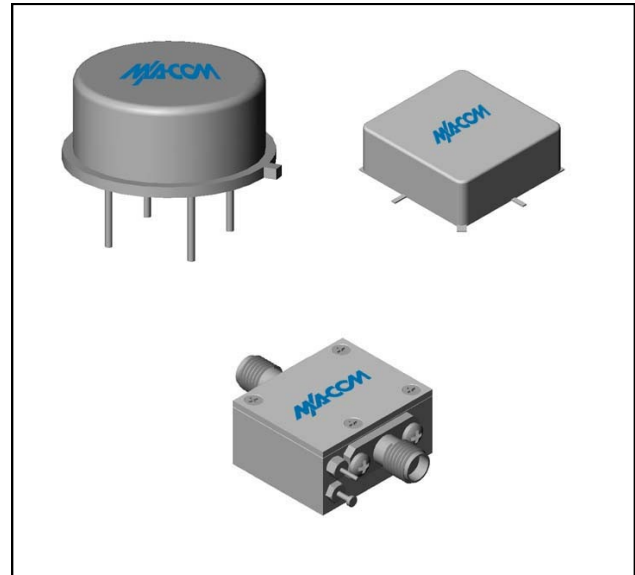
Both TO-8 and Surface Mount packages are hermetically sealed, and MIL-STD-883 environmental screening is available

Ordering Information

| Part Number | Package |
|--------------------|----------------------|
| A36 | TO-8 |
| SMA36 | Surface Mount |
| MAAM-008720-00CA36 | 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 | 80-2000 | 100-2000 | 100-2000 |
| Small Signal Gain (min) | dB | 16.5 | 15.5 | 14.5 |
| Gain Flatness (max) | dB | ±0.3 | ±0.8 | ±1.0 |
| Reverse Isolation | dB | 29 | | |
| Noise Figure (max) | dB | 5.5 | 7.0 | 7.5 |
| Power Output @ 1 dB comp. (min) | dBm | 12.0 | 11.0 | 10.5 |
| IP3 | dBm | +23 | | |
| IP2 | dBm | +30 | | |
| Second Order Harmonic IP | dBm | +35 | | |
| VSWR Input / Output (max) | | 1.5:1 / 1.5:1 | 1.9:1 / 1.9:1 | 2.0:1 / 2.0:1 |
| 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} | 150°C/W |
| Transistor Power Dissipation P_d | 0.394 W |
| Junction Temperature Rise Above Case T_{jc} | 56°C |

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

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Система менеджмента качества компании отвечает требованиям в соответствии с ГОСТ Р ИСО 9001, ГОСТ РВ 0015-002 и ЭС РД 009

Офис по работе с юридическими лицами:

105318, г.Москва, ул.Щербаковская д.3, офис 1107, 1118, ДЦ «Щербаковский»

Телефон: +7 495 668-12-70 (многоканальный)

Факс: +7 495 668-12-70 (доб.304)

E-mail: info@moschip.ru

Skype отдела продаж:

moschip.ru

moschip.ru_4

moschip.ru_6

moschip.ru_9