TELEDYNE
MICROWAVE SOLUTIONS
Everywhereyoulook™

**PRELIMINARY**

# AC2586

## 2000 TO 2500 MHz TO-8 CASCADABLE AMPLIFIER

| Typical Values | AC2586 |
|---|---|
| High Gain | 21.5 dB |
| Low Noise Figure | 1.5 dB |
| Medium Output Power | +15.5 dBm |
| High Performance Thin Film | |
| Standard Size TO-8 Package | |

## SPECIFICATIONS*

| Parameter | Typical | Guaranteed 0 to 50 °C | Guaranteed -55 to +85 °C |
|---|---|---|---|
| Frequency (Min.) | 1900-2500 MHz | 2000-2500 MHz | 2000-2500 MHz |
| Small Signal Gain (Min.) | 21.5 dB | 20.5 dB | 20.0 dB |
| Gain Flatness (Max.) | ±0.5 dB | ±0.8 dB | ±1.0 dB |
| Noise Figure (Max.) | 1.5 dB | 1.7 dB | 2.0 dB |
| SWR (Max.) Input/Output | 1.5:1 | 1.8:1 | 1.9:1 |
| Power Output (Min.) @ 1dB comp. | +15.5 dBm | +14.5 dBm | +13.5 dBm |
| DC Current (Max.) | 45 mA | 48 mA | 51 mA |

* Measured in a 50-ohm system at +15 Vdc unless otherwise specified.

## INTERMODULATION PERFORMANCE

| Typical @ 25 °C | AC2586 |
|---|---|
| Second Order Harmonic Intercept Point | +48 dBm |
| Second Order Two Tone Intercept Point | +42 dBm |
| Third Order Two Tone Intercept Point | +27 dBm |

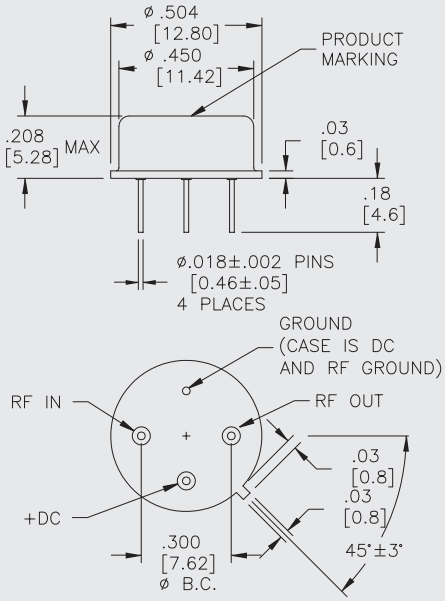
## ABSOLUTE MAXIMUM RATINGS

| | |
|---|---|
| Storage Temperature | -62 to +125 °C |
| Maximum Case Temperature | +125 °C |
| Maximum DC Voltage | +17 Volts |
| Maximum Continuous RF Input Power | +17 dBm |
| Maximum Short Term Input Power (1 Minute Max.) | 100 Milliwatts |
| Maximum Peak Power (3 µsec Max.) | 0.5 Watt |
| Burn-in Temperature | +100 °C |
| Thermal Resistance[1] (θjc) | — °C/Watt |
| Junction Temperature Rise Above Case (Tjc) | — °C |

[1] Thermal resistance is based on total power dissipation.

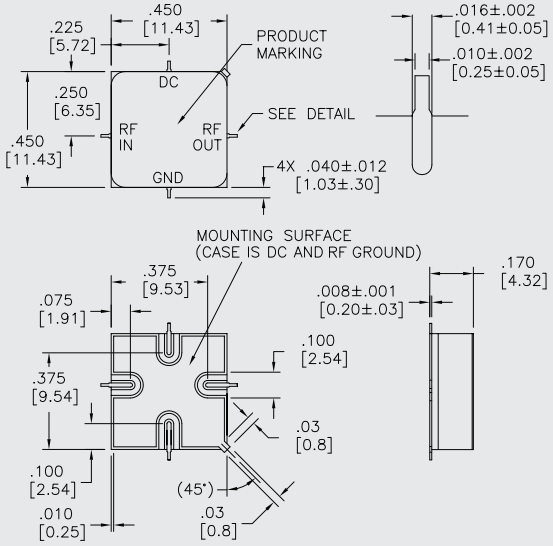
## AC2586

**TO-8 Package for Amplifiers**




## AS2586

**SMTO-8 Package for Amplifiers**




DIMENSIONS ARE IN INCHES [MILLIMETERS]