

**Cascadable Amplifier  
10 to 1500 MHz**

**RA26/SMRA26**

V2

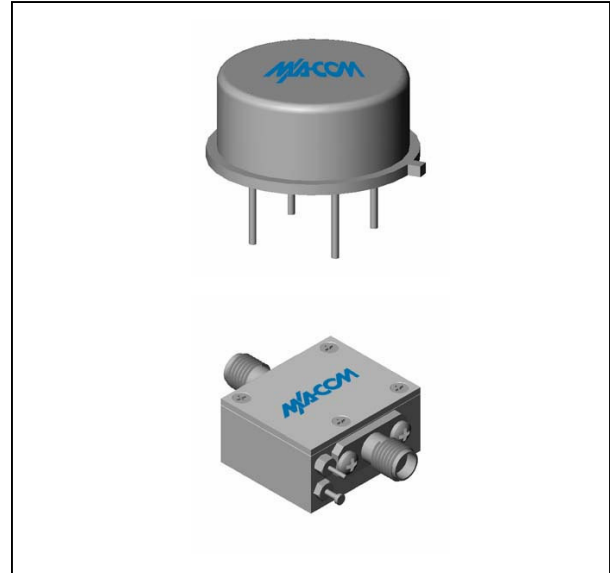
**Features**

- HIGH GAIN-THREE STAGES 27.5 dB (TYP.)
- MEDIUM OUTPUT LEVEL +14.5 dB (TYP.)
- HIGH THIRD-ORDER I.P. +27 dBm (TYP.)
- HIGH REVERSE ISOLATION >40 dB (TYP.)

**Description**

The RA26 RF amplifier is a discrete hybrid design, which uses thin film manufacturing processes for consistent performance and high reliability. This 3 stage bipolar transistor feedback amplifier design displays impressive performance over a broadband frequency range. An active DC biasing network insures temperature-stable performance. The TO-8B package is hermetically sealed, and MIL-STD-883 environmental screening is available. The device is also available in an SMA connectorized housing assembly, which can be purchased as a self assembly kit.

**Product Image**



**Ordering Information**

Part Number	Package
RA26	TO-8B
CRA26	SMA Connectorized

**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	5-1550	10-1500	10-1500
Small Signal Gain (min)	dB	27.5	26.0	25.0
Gain Flatness (max)	dB	±0.4	±0.8	±1.2
Reverse Isolation	dB	42		
Noise Figure (max)	dB	5.5	6.0	6.5
Power Output @ 1 dB comp. (min)	dBm	14.5	13.5	12.5
IP3	dBm	+27		
IP2	dBm	+37		
Second Order Harmonic IP	dBm	+41		
VSWR Input / Output (max)		1.6:1 / 1.6:1	1.9:1 / 1.9:1	2.0:1 / 2.0:1
DC Current @ 15 Volts (max)	mA	82	85	87

**Absolute Maximum Ratings**

Parameter	Absolute Maximum
Storage Temperature	-62°C to +125°C
Case Temperature	125°C
DC Voltage	+17 V
Continuous Input Power	+6 dBm
Short Term Input power (1 minute max.)	100 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 $\theta_{jc}$	45°C/W
Transistor Power Dissipation $P_d$	0.292 W
Junction Temperature Rise Above Case $T_{jc}$	13°C

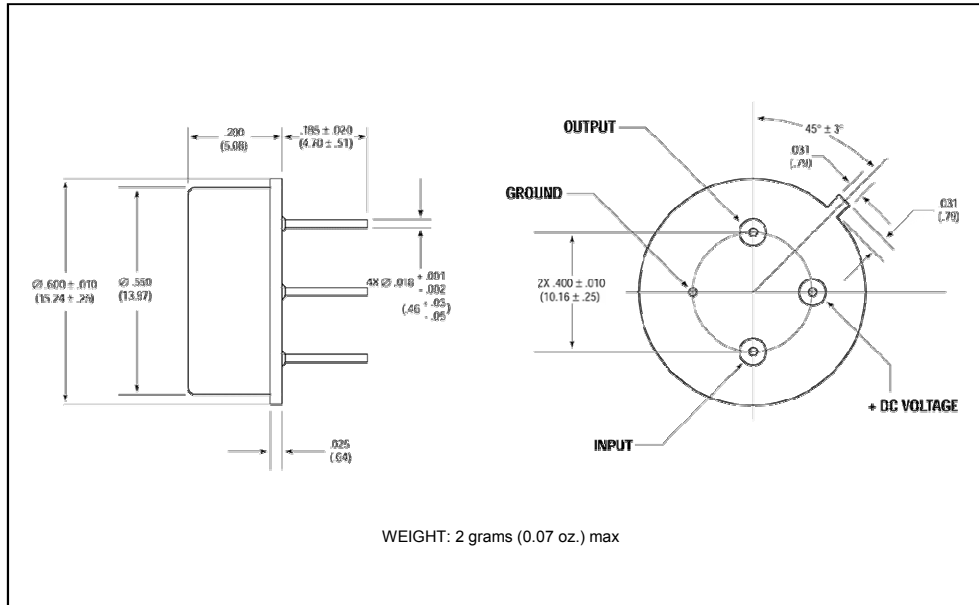
\* Over temperature performance limits for part number CRA26, guaranteed from 0°C to +50°C only.

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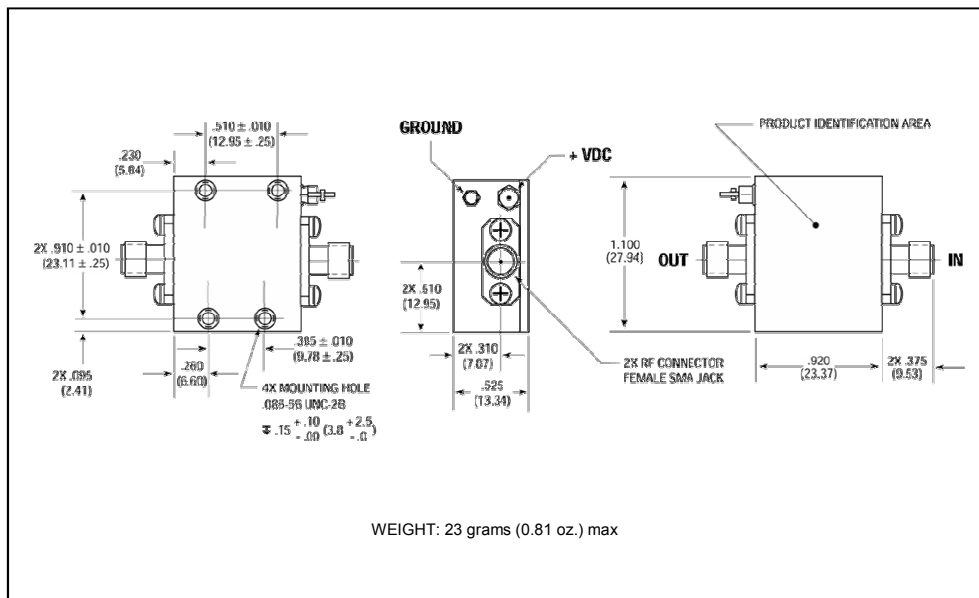
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V2

**Outline Drawing: TO-8B \***



**Outline Drawing: SMA Connectorized \***



\* Dimensions are inches (millimeters) ±0.015 (0.38) unless otherwise specified.