

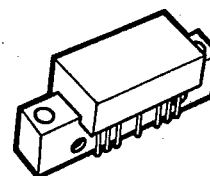
RF Devices Division  
TRW Electronic Components Group



## CA900

### VHF-UHF CATV Amplifier

- Wide Bandwidth 40-900MHz
- 17dB Gain
- Wide Dynamic Range:  
7dB Noise Figure  
60dBmV DIN 45004 B
- Push Pull Circuitry



CA900

Electrical Characteristics for 75Ω Systems (T<sub>case</sub> = 25°C and 24V)

| Characteristics                    | Conditions | Min. | Typ. | Max. | Unit |
|------------------------------------|------------|------|------|------|------|
| Power Gain                         | f = 100MHz | 16.3 | 17   | 17.7 | dB   |
| Frequency Response                 | 40-900MHz  | —    | —    | ±0.7 | dB   |
| Absolute Gain Limits               | 40-900MHz  | 15.5 | —    | 18.2 | dB   |
| Input Return Loss                  | 40-900MHz  | -12  | -14  | —    | dB   |
| Output Return Loss                 | 40-900MHz  | -15  | -17  | —    | dB   |
| Triple Beat +55dBmV (see Figure 1) | 40-900MHz  | —    | —    | -60  | dB   |
| DIN 45004B (see Fig. 2)            | 40-900MHz  | +60  | —    | —    | dBmV |
| Second Order Beat +50dBmV          |            | —    | -70  | -60  | dB   |
| Noise Figure                       | 500MHz     |      | 6.5  | 8    | dB   |
|                                    | 900MHz     |      | 7.5  | 9    | dB   |
| Supply Current                     | 24V        | 220  | 250  | 270  | mA   |

#### Absolute Maximum Ratings

| Symbol          | Characteristics              | CA900           |
|-----------------|------------------------------|-----------------|
| V <sub>cc</sub> | Supply Voltage               | 26V             |
| P <sub>IN</sub> | RF Power Input               | +14dBm          |
| T <sub>st</sub> | Storage Temperature          | -40°C to +100°C |
| T <sub>op</sub> | Operating Temperature (Sink) | -20°C to +100°C |

T-74-09-01

CA900

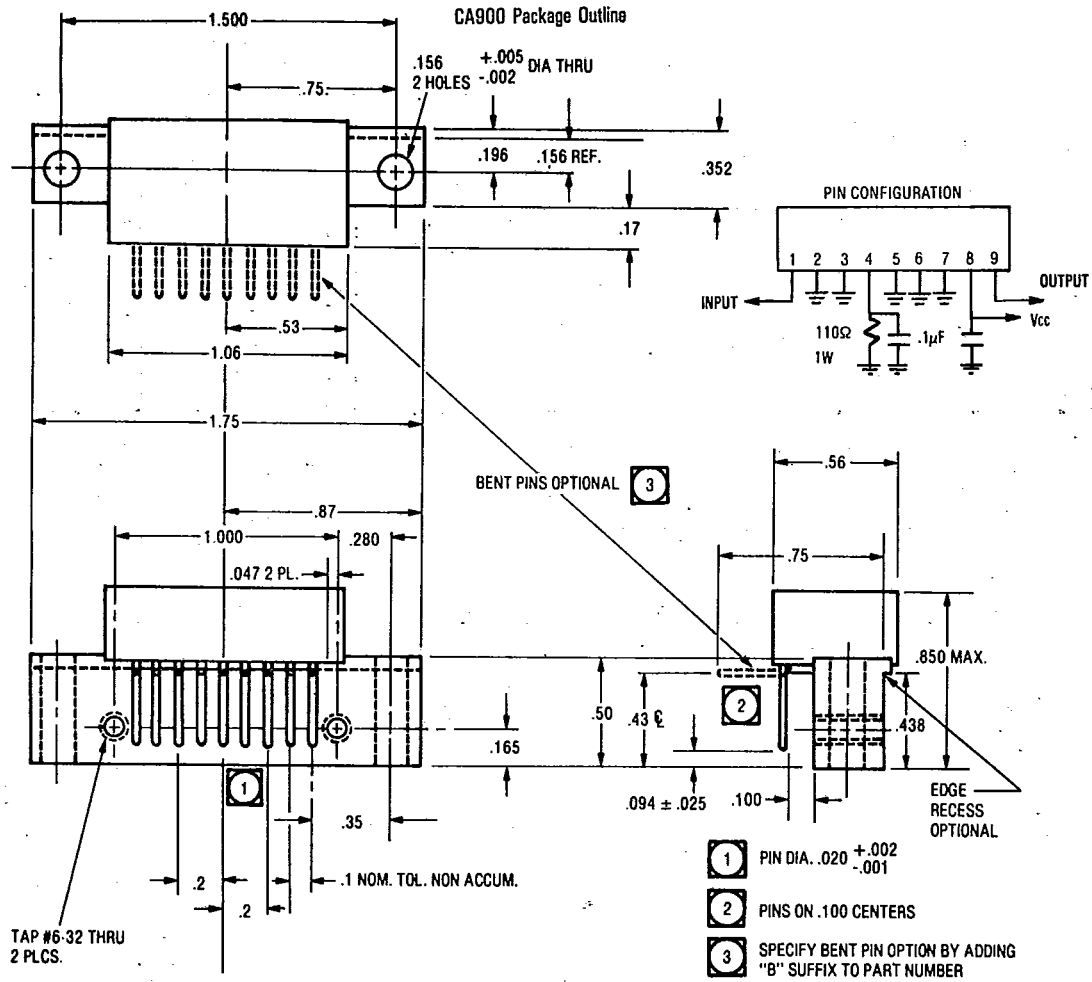


Figure 1. Triple Beat Test

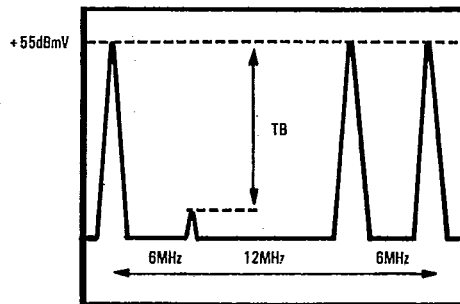


Figure 2. DIN45004B Test

