

RF Devices Division
TRW Electronic Components Group

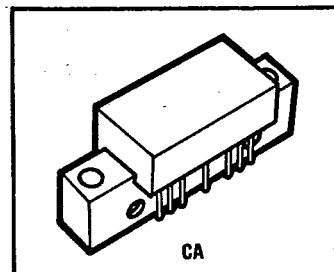


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CA2890

CA2890 Wide Bandwidth Linear Hybrid Amplifier

- Power Output, 800mW
- 38.5dB Gain
- Instantaneous Bandwidth, 40-450MHz
- Low Noise Figure, 6dB



The CA2890 is a high-reliability thin-film hybrid amplifier utilizing an all gold metallization system. Units are designed for wide bandwidth linear

operation in 50 to 100 ohm systems. This hybrid provides excellent gain stability with temperature and very low distortion due to push-

pull amplifier circuitry. This module is recommended for wide bandwidth, low noise and linear applications.

Absolute Maximum Ratings

Vcc	RF Power Input	Storage Temperature	Operating Temperature
28 Volts	-5dBm	-40°C to +100°C	-20°C to +90°C

Electrical Characteristics for 50Ω Systems (TCASE = 25°C and 24V)

Symbol	Characteristic	Conditions	Value
P _G	Power Gain	f = 50MHz	38.5±.5dB
NF	Noise Figure, Broadband	f = 450MHz	6dB Typ
I _{TO}	Third Order Intercept, See Figure 1	f ₁ = 450MHz	+40dBm Typ
VSWR	Input/Output VSWR for 50Ω Systems	f = 40-450MHz	2:1 Typ
I _{CC}	Supply Current	24V	335mA Max
P _O	Power Output — 1dB Compression	f = 200MHz	800mW
P _{RI}	Reverse Isolation	f = 40-450MHz	40dB Typ
F _R	Frequency Response	f = 40-450MHz f = 10-550MHz	±0.5dB Max ±3dB Max
d _{SO}	Second Harmonic Distortion	Tone at 10mW f _{2H} = 10-300MHz	-66dB Typ