

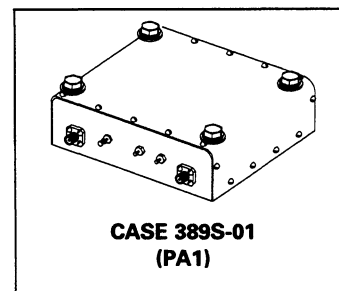
*Advance Information*  
**The RF Line**  
**Linear Power Amplifier**

Designed for cellular radio base stations in the 850 to 900 MHz frequency range. This solid state, Class AB amplifier incorporates microstrip circuit technology and high performance, gold metallized transistors to provide a complete broadband, linear amplifier operating from a supply voltage of 25 volts.

- Frequency Range — 850 to 900 MHz
- Output Power — 10 W (Typ)
- Gain — 45 dB Max, 15 dB Min @ f = 900 MHz
- 50 Ohm Input and Output Impedance
- Directional Coupled Output Port
- Detected Output Voltage — 0 to 10 Vdc
- Gain Control Input — 0 to 12 Vdc
- Additional Features Available — Consult Factory

**PA900-45-10LGC**

**10 WATTS**  
**850-900 MHz**  
**LINEAR RF POWER**  
**AMPLIFIER MODULE**



**MAXIMUM RATINGS** ( $T_A = 25^\circ\text{C}$  unless otherwise noted)

Rating	Symbol	Value	Unit
Supply Voltage	V <sub>CC</sub>	27	Vdc
RF Input Power	P <sub>in</sub>	100	mW
Storage Temperature	T <sub>stg</sub>	-55 to +125	°C

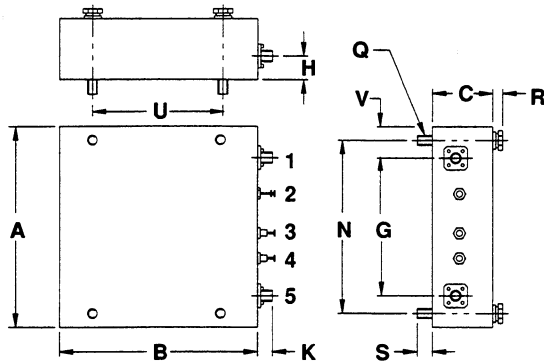
**ELECTRICAL CHARACTERISTICS** ( $T_C = 25^\circ\text{C}$ , V<sub>CC</sub> = 25 V, 50 Ohm System Power output — 10 W)

Supply Current	I <sub>CC</sub>	2.4	A
Gain (f = 900 MHz) Max	G	45 ± 1.0	dB
Bandwidth	BW	850-900	MHz
Gain Flatness (f = 850 to 900 MHz)		± 0.5	dB
Input VSWR (f = 850 to 900 MHz)	VSWR	1.5:1	
Output VSWR (f = 850 to 900 MHz)	VSWR	1.5:1	
Third Order Intercept Point (f = 900 MHz) @ Max Gain	I <sub>TO</sub>	55	dBm
Directional Coupler Directivity (f = 900 MHz)		20	dB
Load Mismatch (P <sub>O</sub> = 10 W, f = 850 MHz, 00:1 VSWR)		No damage	
Saturated Output Power	P <sub>sat</sub>	12	W

This document contains information on a new product. Specifications and information herein are subject to change without notice.



## OUTLINE DIMENSIONS



STYLE 1:  
 PIN 1. RF IN  
 2. GROUND  
 3. Vcc  
 4. DET. OUT  
 5. RF OUT

**NOTES:**

1. DIMENSIONING AND TOLERANCING PER ANSI Y14.5M, 1982.
2. CONTROLLING DIMENSION: INCH.

DIM	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	128.0	131.1	5.04	5.16
B	112.8	115.8	4.44	4.56
C	37.8	40.9	1.49	1.61
G	87.4	90.4	3.44	3.56
H	13.7	16.8	0.54	0.66
K	7.9	10.9	0.31	0.43
N	110.2	113.3	4.34	4.46
R	4.8	7.9	0.19	0.31
S	7.9	10.9	0.31	0.43
U	84.8	87.9	3.34	3.46
V	18.8	21.8	0.74	0.86

**CASE 389S-01**

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