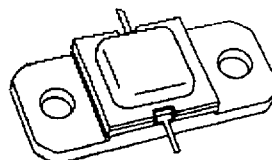


RF & MICROWAVE TRANSISTORS
UHF COMMUNICATIONS APPLICATIONS

- REFRACTORY/GOLD METALLIZATION
- EMITTER SITE BALLASTED
- LOW THERMAL RESISTANCE
- INPUT/OUTPUT MATCHING
- OVERLAY GEOMETRY
- METAL/CERAMIC HERMETIC PACKAGE
- $P_{OUT} = 18 \text{ W MIN. WITH } 8.6 \text{ dB GAIN}$



.400 x .400 2NLFL (S042)
hermetically sealed

ORDER CODE
AM80610-18

BRANDING
80610-18

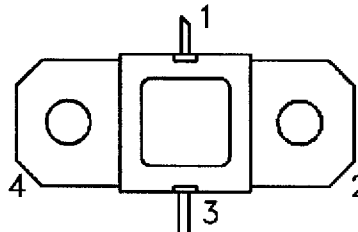
DESCRIPTION

The AM80610-018 is a high power, common base NPN silicon bipolar device optimized for CW operation in the 620 - 960 MHz frequency range.

AM80610-018 utilizes a rugged, overlay, emitter-ballasted L-Band die geometry to achieve high gain and collector efficiency and is suitable for driver or output stage use in Class C power amplifiers. Typical applications include military communications, ECM, and test equipment.

The AM80610-018 is provided in the industry-standard, metal/ceramic AMPAC™ hermetic pack-

PIN CONNECTION



- | | |
|--------------|------------|
| 1. Collector | 3. Emitter |
| 2. Base | 4. Base |

ABSOLUTE MAXIMUM RATINGS ($T_{case} = 25^{\circ}\text{C}$)

Symbol	Parameter	Value	Unit
P_{DISS}	Power Dissipation* ($T_C \leq 50^{\circ}\text{C}$)	40	W
I_C	Device Current*	2.0	A
V_{CC}	Collector-Supply Voltage*	32	V
T_J	Junction Temperature	200	$^{\circ}\text{C}$
T_{STG}	Storage Temperature	- 65 to +200	$^{\circ}\text{C}$

THERMAL DATA

$R_{TH(j-c)}$	Junction-Case Thermal Resistance*	4.0	$^{\circ}\text{C/W}$
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*Applies only to rated RF amplifier operation

AM80610-018

ELECTRICAL SPECIFICATIONS ($T_{case} = 25^{\circ}C$)

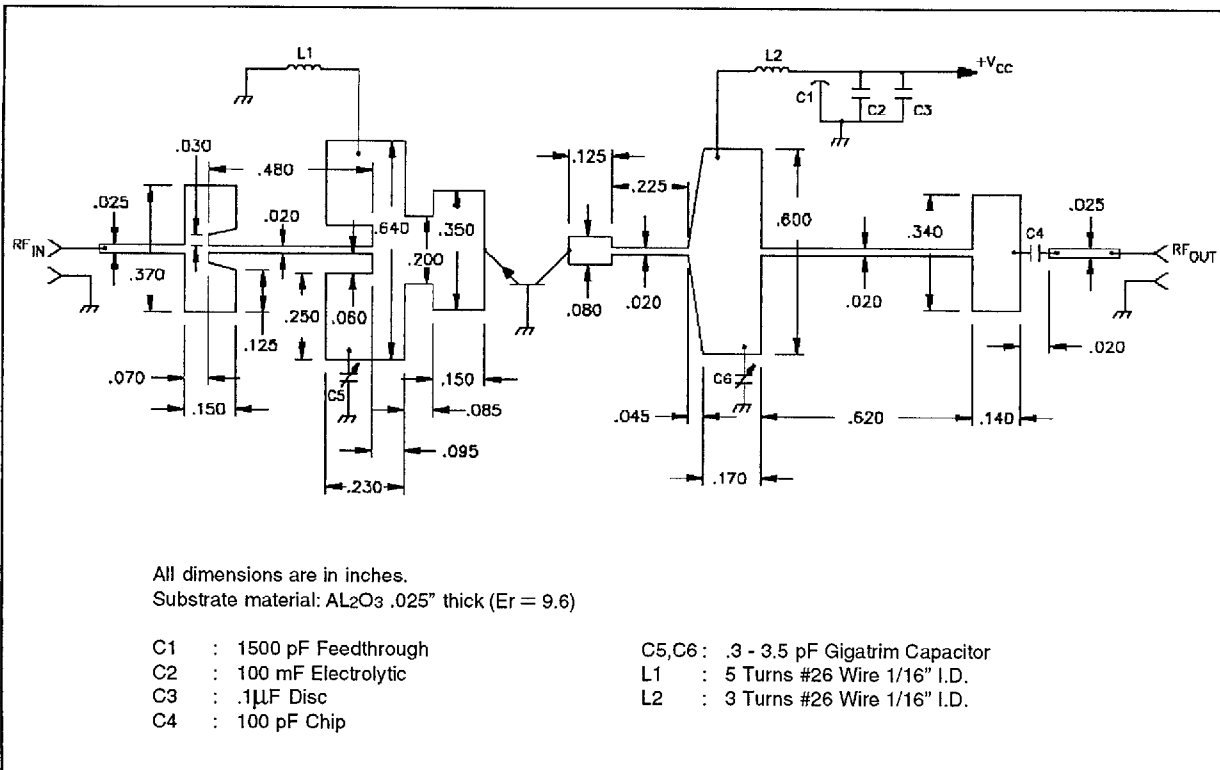
STATIC

Symbol	Test Conditions	Value			Unit
		Min.	Typ.	Max.	
BV_{CBO}	$I_C = 10mA$ $I_E = 0mA$	55	—	—	V
BV_{EBO}	$I_E = 1mA$ $I_C = 0mA$	3.5	—	—	V
BV_{CER}	$I_C = 20mA$ $R_{BE} = 10\Omega$	55	—	—	V
I_{CES}	$V_{BE} = 0V$ $V_{CE} = 28V$	—	—	5	mA
h_{FE}	$V_{CE} = 5V$ $I_C = 1A$	15	—	150	—

DYNAMIC

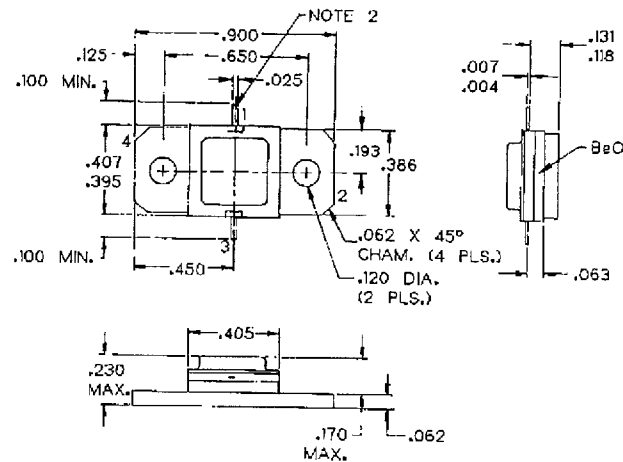
Symbol	Test Conditions	Value			Unit
		Min.	Typ.	Max.	
P_{OUT}	$f = 620 - 960MHz$ $P_{IN} = 2.5W$ $V_{CC} = 28V$	18	—	—	W
η_c	$f = 620 - 960MHz$ $P_{IN} = 2.5W$ $V_{CC} = 28V$	48	—	—	%
GP	$f = 620 - 960MHz$ $P_{IN} = 2.5W$ $V_{CC} = 28V$	8.6	—	—	dB

TEST CIRCUIT



PACKAGE MECHANICAL DATA

Ref.: Dwg. No.: J113214F



NOTES:

1. ALL TOLERANCE $\pm .010$ EXCEPT WHERE NOTED;
DIMENSIONS IN INCHES.
2. COLLECTOR LEAD SLANT CUT.

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