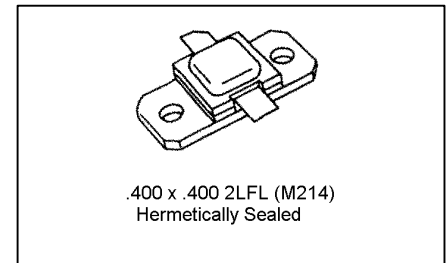


**RF & MICROWAVE TRANSISTORS
UHF PULSED APPLICATIONS**

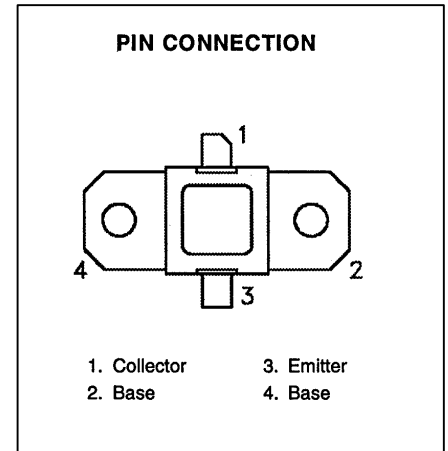
Features

- INTERNAL INPUT MATCHING
- COMMON BASE
- GOLD METALLIZATION
- CLASS C OPERATION
- POUT = 300 W MIN. WITH 8.8 dB GAIN



DESCRIPTION:

THE AM0710-300 IS A HIGH PEAK PULSE POWER SILICON NPN BIPOLAR DEVICE SUITABLE FOR UHF AVIONICS, RADAR, AND EW APPLICATIONS. WITH 8.8 DB MINIMUM POWER GAIN, THE HERMETICALLY PACKAGED DEVICE IS IDEAL FOR USE IN EITHER SINGLE ENDED OR PARALLEL-COMBINED PULSE POWER AMPLIFIERS.



ABSOLUTE MAXIMUM RATINGS (Tcase = 25°C)

Symbol	Parameter	Value	Unit
V _{CC}	Collector Supply Voltage (T _C ≤ 100° C)	50	V
I _C	Device Current*	20	A
P _{DISS}	Power Dissipation*	680	W
T _J	Junction Temperature (Pulsed RF Operation)	+200	°C
T _{STG}	Storage Temperature	-65 to +200	°C

Thermal Data

R _{TH(J-C)}	Junction-case Thermal Resistance*	0.22	°C/W
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*Applies only to rated RF Amplifier Operation

ELECTRICAL SPECIFICATIONS (T_{case} = 25°C)
STATIC

Symbol	Test Conditions		Value			Unit
			Min.	Typ.	Max.	
BV_{CBO}	I_C = 40mA	I_E = 0mA	65	---	---	V
BV_{EBO}	I_E = 10mA	I_C = 0mA	3.0	---	---	V
BV_{CES}	I_C = 40mA	V_{BE} = 0 V	65	---	---	V
I_{CES}	V_{CB} = 50 V	V_{BE} = 0 V	-----	---	25	mA
h_{FE}	V_{CE} = 5 V	I_C = 4A	10	---	---	---

DYNAMIC

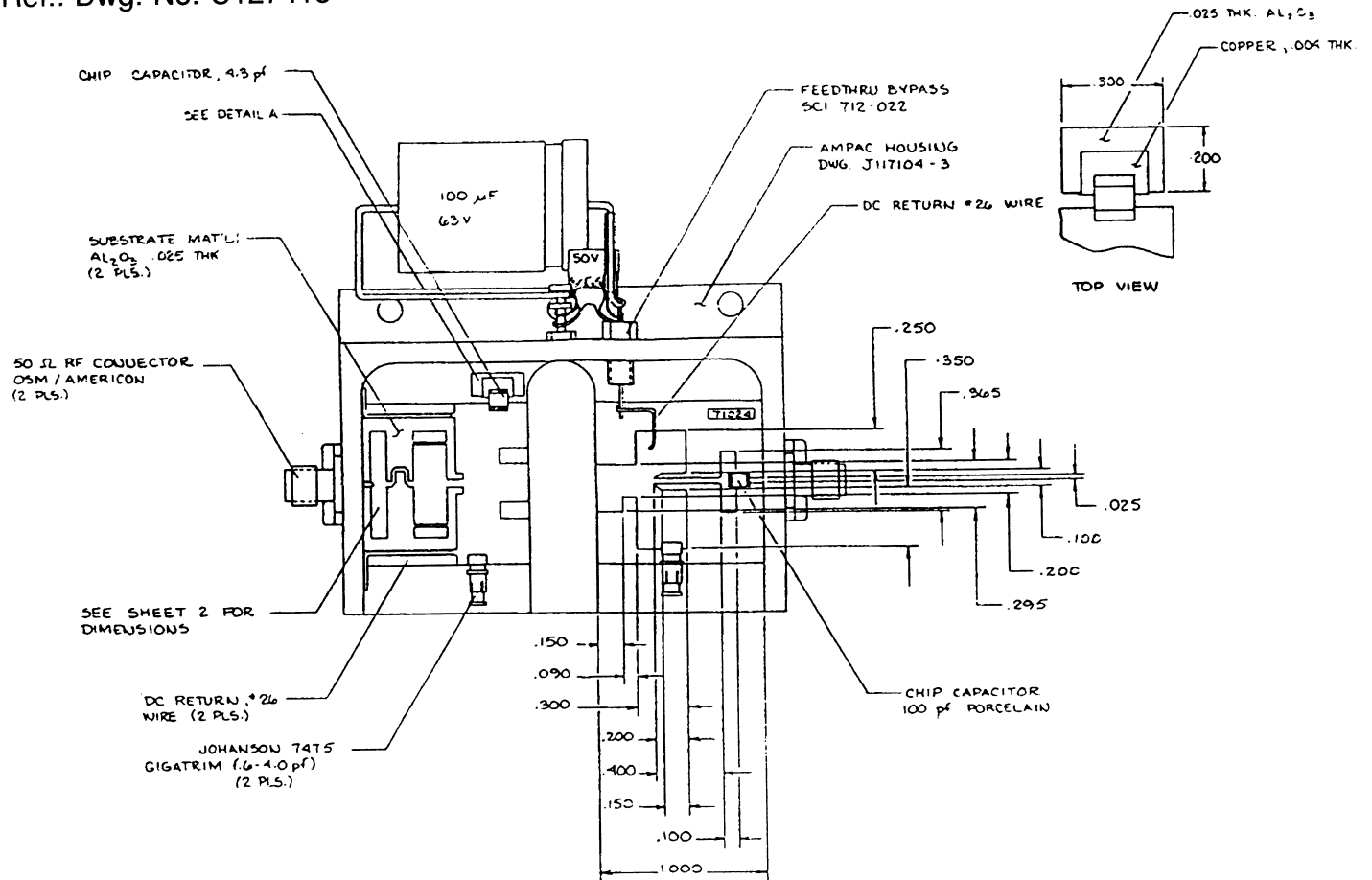
Symbol	Test Conditions			Value			Unit
				Min.	Typ.	Max.	
P_{OUT}	f = 750-950MHz	V_{CE} = 50V	P_{IN} = 40W	300	---	---	W
G_P	f = 750-950MHz	V_{CE} = 50V	P_{IN} = 40W	8.8	---	---	dB
η_C	f = 750-950MHz	V_{CE} = 50V	P_{IN} = 40W	40	---	---	%

Pulse Width = 10 μs
Duty Cycle = 10%

AM0710-300

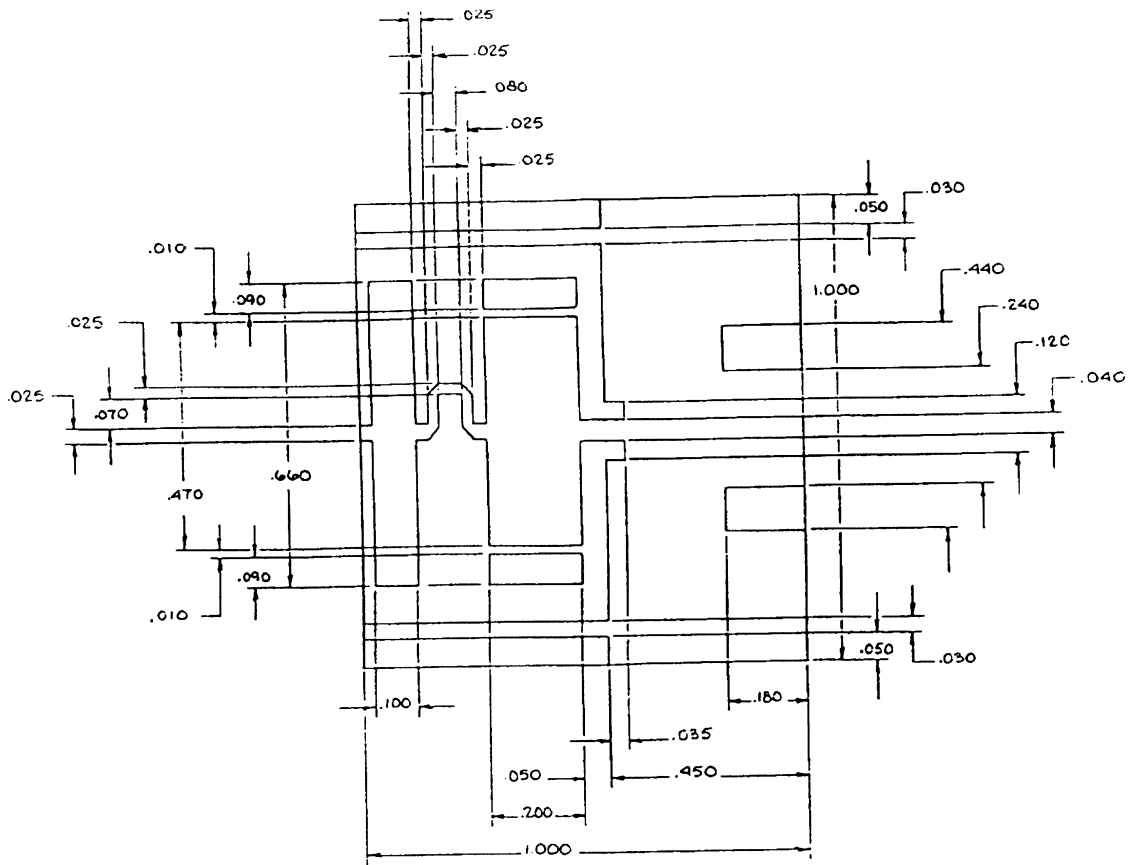
TEST CIRCUIT

Ref.: Dwg. No. C127415



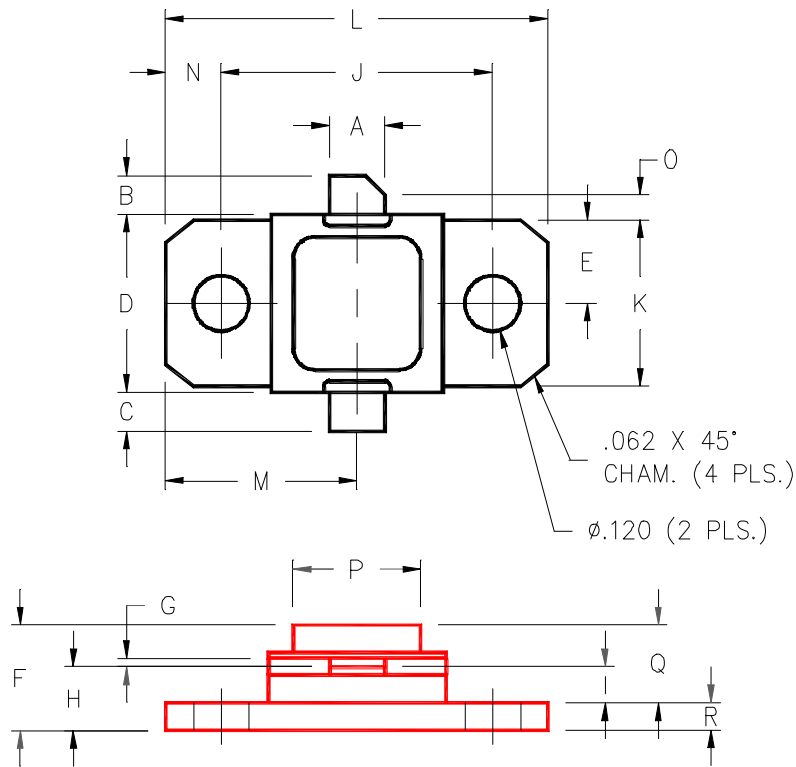
AM0710-300

CONTINUED



PACKAGE MECHANICAL DATA

PACKAGE STYLE M214



	MINIMUM INCHES/MM	MAXIMUM INCHES/MM		MINIMUM INCHES/MM	MAXIMUM INCHES/MM
A	.140/3,56		J	.650/16,51	
B	.110/2,80		K	.386/9,80	
C	.110/2,80		L	.900/22,86	
D	.395/10,03	.407/10,34	M	.450/11,43	
E	.193/4,90		N	.125/3,18	
F		.230/5,84	O	.050/1,27	
G	.003/0,08	.006/0,15	P	.405/10,29	
H	.118/3,00	.131/3,33	Q	.170/4,32	
I	.063/1,60		R	.062/1,58	