

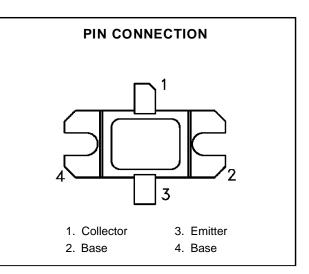
AM0608-450

PRELIMINARY DATA

RF & MICROWAVE TRANSISTORS AVIONICS APPLICATIONS

- REFRACTORY/GOLD METALLIZATION
- INPUT MATCHING
- OVERLAY GEOMETRY
- METAL/CERAMIC HERMETIC PACKAGE
- P_{OUT} = 445 W MIN. WITH 6.9 dB GAIN

AM0608-450



DESCRIPTION

The AM0608-450 is an internally-matched, common base silicon bipolar device optimized pulsed application in the 600 - 750 MHz frequency range.

Housed in the industry-standard BIGPACTM metal/ceramic package, this device uses a refractory/gold overlay die geometry for ruggedness and long-term reliability.

ABSOLUTE MAXIMUM RA	TINGS ($T_{case} = 25^{\circ}C$)
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Symbol	Parameter	Value	Unit	
P _{DISS}	Power Dissipation* $(T_C \le 50^{\circ}C)$	1500	W	
lc	Device Current*	32	А	
Vcc	Collector-Supply Voltage*	55	V	
TJ	Junction Temperature (Pulsed RF Operation)	250	°C	
T _{STG}	Storage Temperature	– 65 to +200	°C	

THERMAL DATA

R _{TH(j-c)} Junction-Case Thermal Resistance*	0.13	°C/W
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*Applies only to rated RF amplifier operation

AM0608-450

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

STATIC

			Value			
Symbol		Test Conditions	Min.	Тур.	Max.	Unit
ВVсво	I _C = 50mA	$I_E = 0mA$	65	_	_	V
BV _{EBO}	I _E = 5mA	$I_C = 0mA$	3.5	_	_	V
BV _{CER}	IC = 50mA	$R_{BE} = 10\Omega$	65		_	V
ICES	$V_{CE} = 50V$		—	—	35	mA
Ісво	$V_{CB} = 50V$		—	—	25	mA
h _{FE}	$V_{CE} = 5V$	$I_C = 1A$	15	_	300	

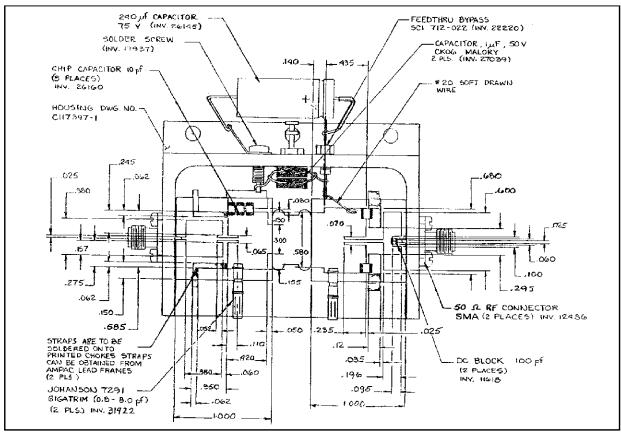
DYNAMIC

				Value			
Symbol		Test Conditions		Min.	Тур.	Max.	Unit
Роит	f = 600 — 750MHz	$P_{IN} = 90W$	Vcc = 50V	445			W
ηc	f = 600 — 750MHz	$P_{IN} = 90W$	$V_{CC} = 50V$	35	_	_	%
GP	f = 600 — 750MHz	$P_{IN} = 90W$	$V_{CC} = 50V$	6.9		_	dB

Note: Pulse Width = $10\mu S$

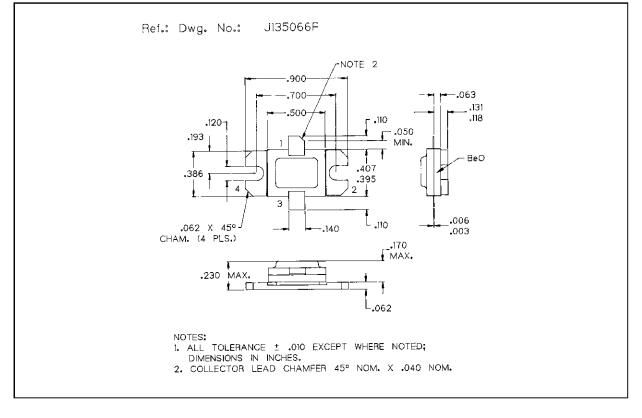
Duty Cycle = 1%

TEST CIRCUIT





PACKAGE MECHANICAL DATA



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