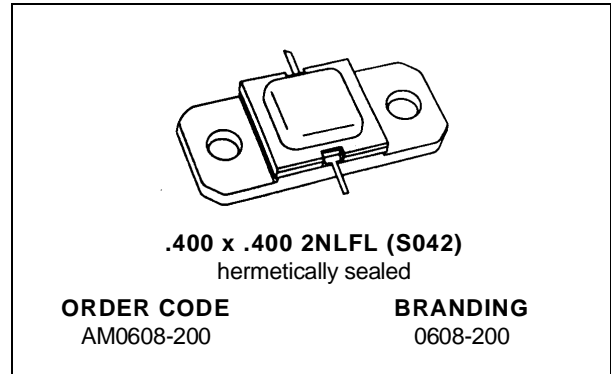


RF & MICROWAVE TRANSISTORS AVIONICS APPLICATIONS

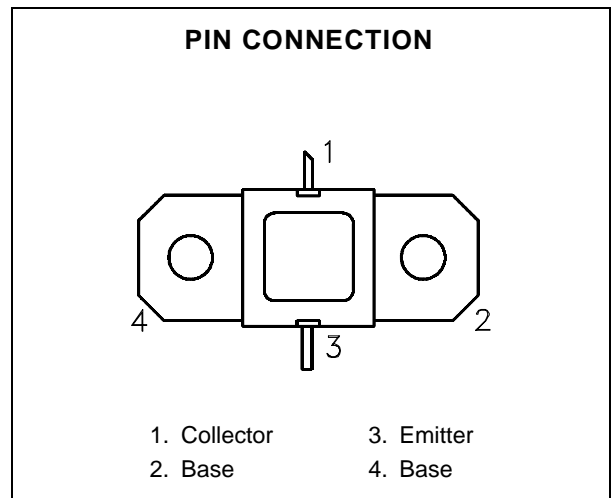
PRELIMINARY DATA

- REFRACTORY/GOLD METALLIZATION
- INTERNAL INPUT MATCHING
- METAL/CERAMIC HERMETIC PACKAGE
- $P_{OUT} = 220 \text{ W MIN. WITH } 8.7 \text{ dB GAIN}$



DESCRIPTION

The AM0608-200 is an internally-matched, common base silicon bipolar device optimized pulsed application in the 600 - 750 MHz frequency range. Housed in the industry-standard AMPAC™ metal/ceramic package, this device uses a refractory/gold overlay die geometry for ruggedness and long-term reliability.



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

Symbol	Parameter	Value	Unit
P_{DISS}	Power Dissipation* ($T_C \leq 75^{\circ}\text{C}$)	875	W
I_C	Device Current*	16.0	A
V_{CC}	Collector-Supply Voltage*	55	V
T_J	Junction Temperature (Pulsed RF Operation)	250	$^{\circ}\text{C}$
T_{STG}	Storage Temperature	- 65 to +200	$^{\circ}\text{C}$

THERMAL DATA

$R_{TH(j-c)}$	Junction-Case Thermal Resistance*	0.20	$^{\circ}\text{C/W}$
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*Applies only to rated RF amplifier operation

AM0608-200

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

STATIC

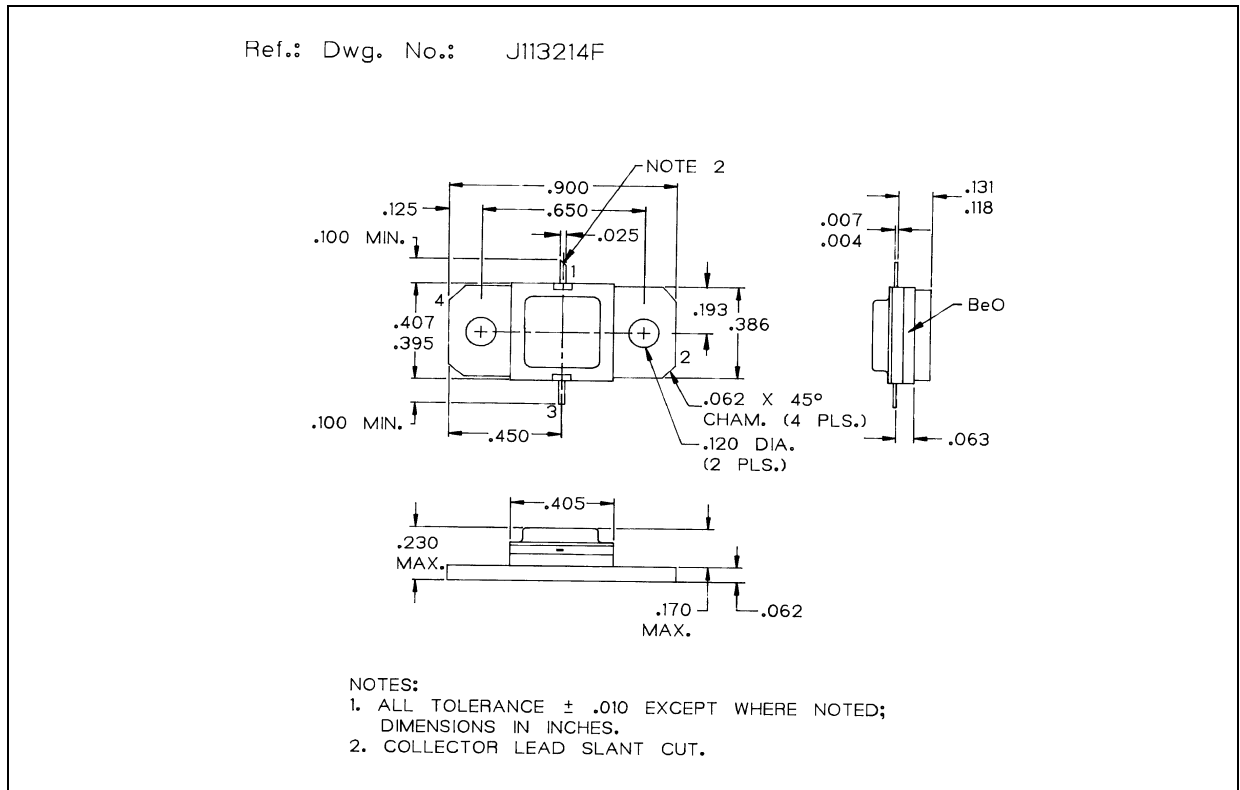
Symbol	Test Conditions		Value			Unit
			Min.	Typ.	Max.	
BV _{CBO}	I _C = 10mA	I _E = 0mA	65	—	—	V
BV _{EBO}	I _E = 1mA	I _C = 0mA	3.5	—	—	V
BV _{CER}	I _C = 25mA	R _{BE} = 10Ω	65	—	—	V
I _{CES}	V _{BE} = 0V	V _{CE} = 50V	—	—	25	mA
h _{FE}	V _{CE} = 5V	I _C = 1mA	15	—	120	—

DYNAMIC

Symbol	Test Conditions			Value			Unit
				Min.	Typ.	Max.	
P _{OUT}	f = 600 — 750MHz	P _{IN} = 30W	V _{CC} = 50V	220	—	—	W
η _c	f = 600 — 750MHz	P _{IN} = 30W	V _{CC} = 50V	40	—	—	%
G _P	f = 600 — 750MHz	P _{IN} = 30W	V _{CC} = 50V	8.7	—	—	dB

Note: Pulse Width = 10μSec
Duty Cycle = 1%

PACKAGE MECHANICAL DATA



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