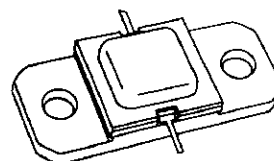


RF & MICROWAVE TRANSISTORS AVIONICS APPLICATIONS

PRELIMINARY DATA

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



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

ORDER CODE

AM0608-200

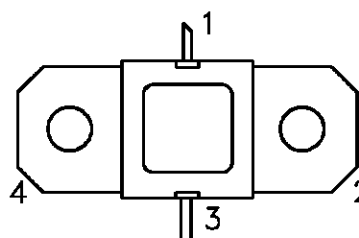
BRANDING

0608-200

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.

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* ($T_C \leq 75^{\circ}\text{C}$)	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

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

STATIC

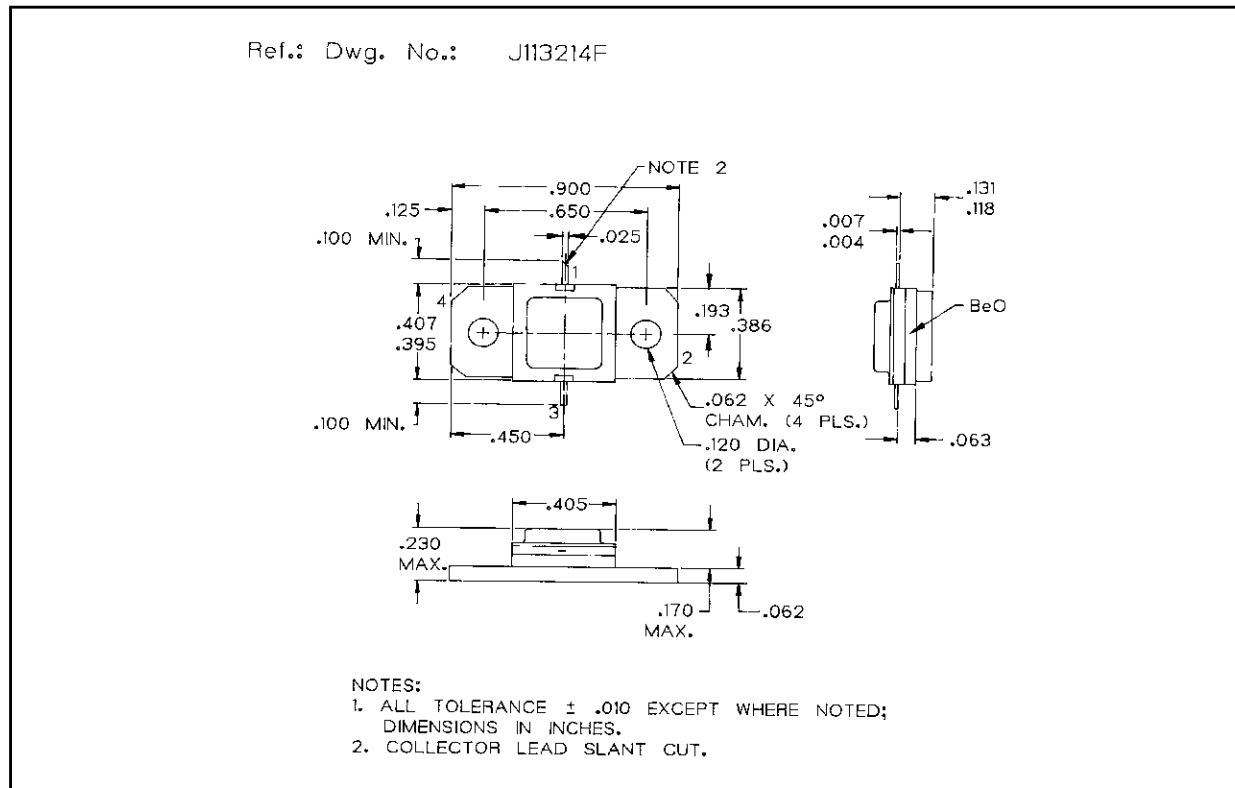
Symbol	Test Conditions	Value			Unit
		Min.	Typ.	Max.	
BV_{CBO}	$I_C = 10mA$ $I_E = 0mA$	65	—	—	V
BV_{EBO}	$I_E = 1mA$ $I_C = 0mA$	3.5	—	—	V
BV_{CER}	$I_C = 25mA$ $R_{BE} = 10\Omega$	65	—	—	V
I_{CES}	$V_{BE} = 0V$ $V_{CE} = 50V$	—	—	25	mA
h_{FE}	$V_{CE} = 5V$ $I_C = 1mA$	15	—	120	—

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 = $10\mu Sec$
Duty Cycle = 1%

PACKAGE MECHANICAL DATA



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