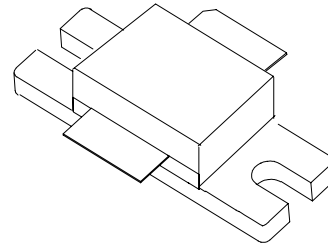


Updated Feb 2001

## GENERAL DESCRIPTION

The GHz20060 is a COMMON EMITTER transistor capable of providing 60 Watts of Class AB, RF PEP output power over the band 1800-2000 MHz. This transistor is specifically designed for **LINEAR COMMUNICATIONS BASE STATION** amplifier applications. It includes single stage input and single output prematching. It utilizes Gold metalization and EMITTER ballasting to provide high reliability and supreme ruggedness. The GHz20060 is in the industry standard Beryllium Oxide (BeO) package design to drop into existing applications.

## CASE OUTLINE 55SW, STYLE 2 COMMON EMITTER



## ABSOLUTE MAXIMUM RATINGS

Maximum Power Dissipation @ 25°C 250 Watts

### Maximum Voltage and Current

BVceo	Collector to Emitter Voltage	25 Volts
BVces	Collector to Emitter Voltage	60 Volts
BVcbo	Collector to Base Voltage	60 Volts
BVebo	Emitter to Base Voltage	3 Volts
Ic	Collector Current	8.0 Amps

### Maximum Temperatures

Storage Temperature	- 65 to + 150°C
Operating Junction Temperature	+ 200°C

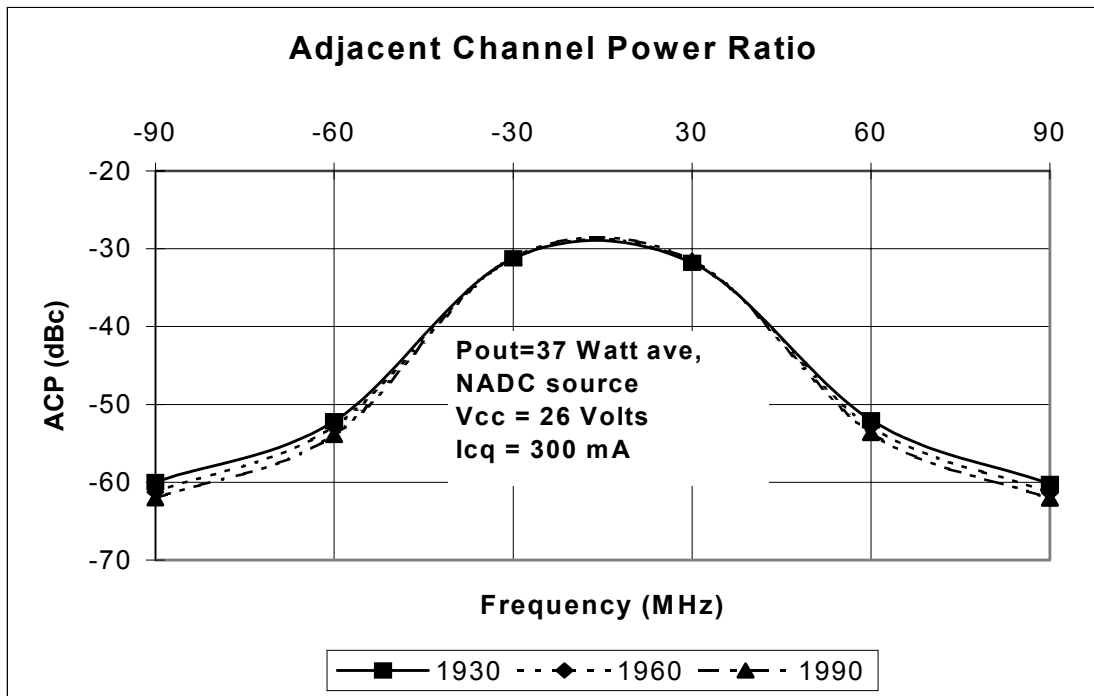
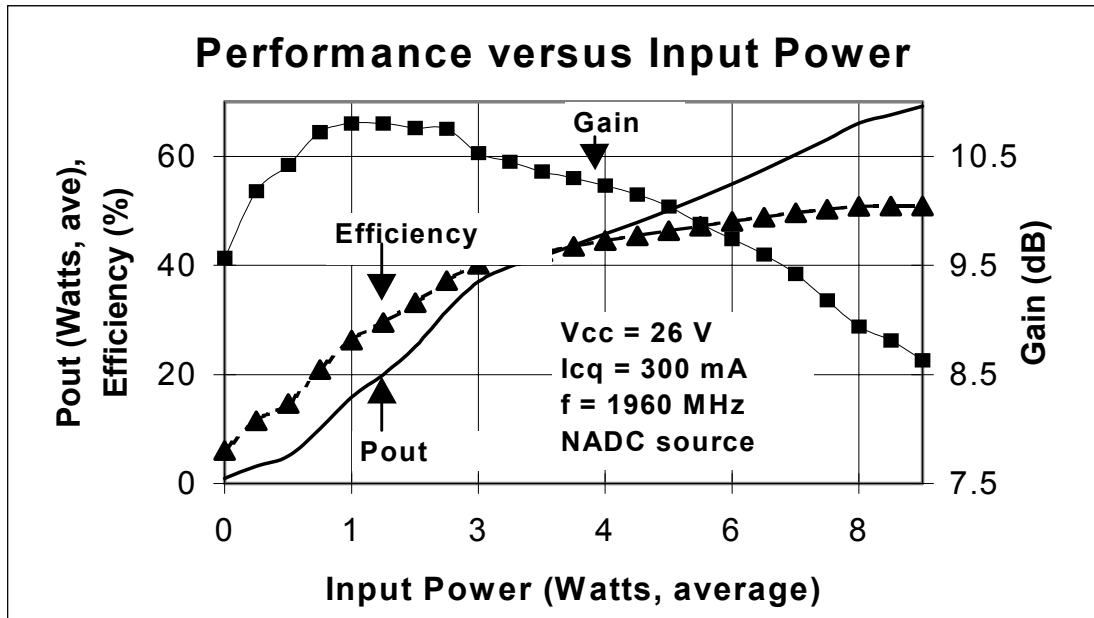
## ELECTRICAL CHARACTERISTICS @ 25 °C

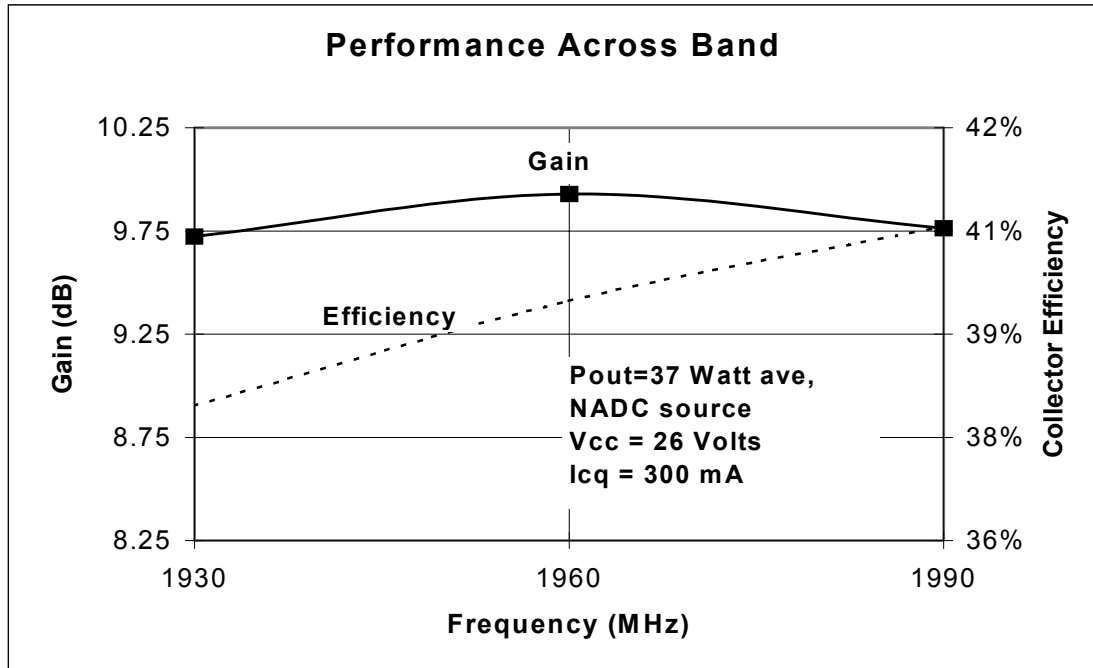
SYMBOL	CHARACTERISTICS	TEST CONDITIONS	MIN	TYP	MAX	UNITS
<b>G<sub>pe</sub></b>	Common Emitter Power Gain	F =2000 MHz Vce = 26 Volts	9.0	9.5		dB
<b>RL</b>	Return Loss	Ic <sub>q</sub> = 300 mAmps			-10	dB
<b>η<sub>c</sub></b>	Collector Efficiency	60 Watts PEP	35	40		%
<b>VSWR<sub>1</sub></b>	Load Mismatch Tolerance				3:1	
<b>IMD</b>	Intermodulation Distortion	As above, except F2=2000.1 MHz			-30	dBc

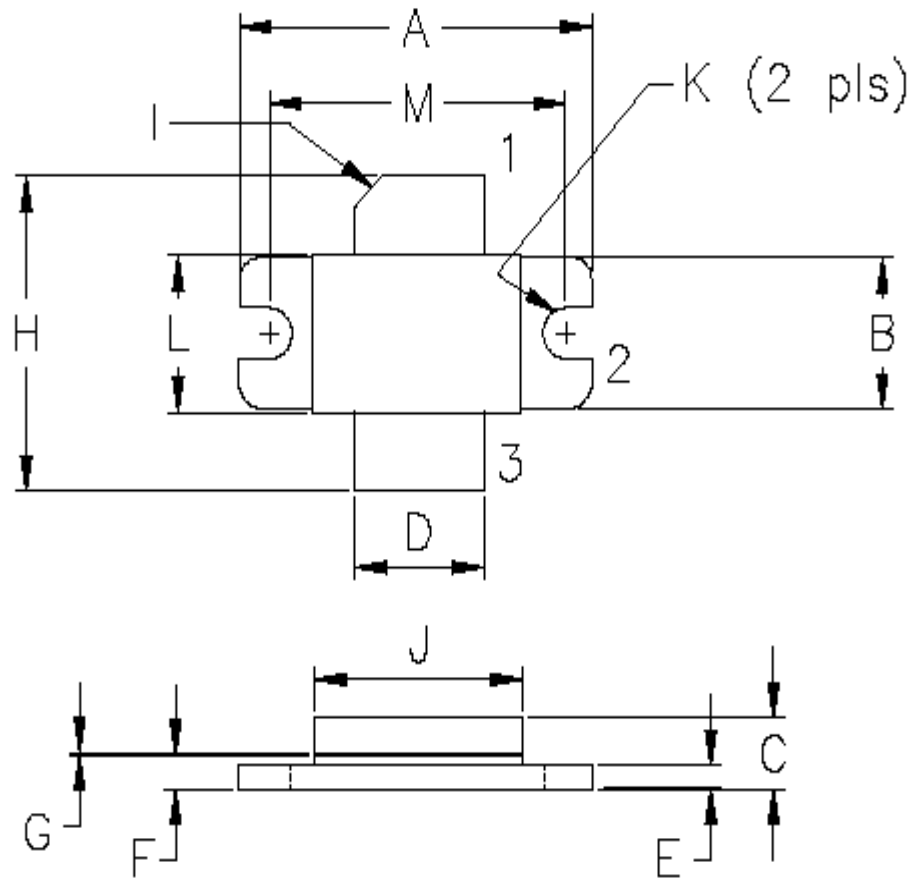
<b>BVceo</b>	Collector to Emitter Breakdown	Ic = 50 mA, Ib = 0 mA	25			Volts
<b>BVces</b>	Collector to Emitter Breakdown	Ic = 50 mA, Vbe = 0	60			Volts
<b>BVcbo</b>	Collector to Base Breakdown	Ic = 50 mA, Ie = 0 mA	60			Volts
<b>BVebo</b>	Reverse Emitter to Base Breakdown	Ib = 10 mA, Ic = 0 mA	3.0			Volts
<b>Ices</b>	Collector Leakage Current				10	mA
<b>h<sub>FE</sub></b>	DC - Current Gain	Vce = 30 Vdc, Vbe = 0 Vdc			100	
<b>θ<sub>jc</sub></b>	Thermal Resistance	Vce = 5 V, Ic = 1.0 A Tc = 25°C	20		.87	°C/W

Issue A, January 2000

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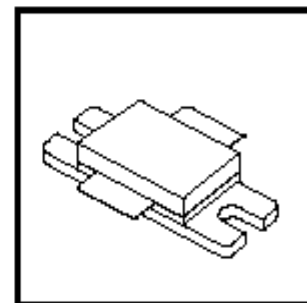




DIM	MILLIMETER	TOL	INCHES	TOL
A	25.40	.25	1.000	.010
B	9.58	.25	.385	.010
C	4.57	.19	.180	.007
D	9.40	.13	.370	.005
E	1.53	.13	.060	.005
F	2.15	.13	.085	.005
G	0.13	.03	.005	.001
H	20.32	.76	.800	.030
I	45°	5°	45°	5°
J	15.24	.25	.600	.030
K	3.30 DIA	.13	.130 DIA	.005
L	10.16	.13	.400	.005
M	20.32	MAX	.800	MAX

STYLE 1:  
 PIN 1 = COLLECTOR  
 2 = BASE  
 3 = EMITTER

STYLE 2:  
 PIN 1 = COLLECTOR  
 2 = EMITTER  
 3 = BASE



**GHz TECHNOLOGY**  
 RF - MICROWAVE SILICON POWER TRANSISTORS

DWG NO.

**55SW**