GHz TECHNOLOGY
RF·MICROWAVE SILICON POWER TRANSISTORS

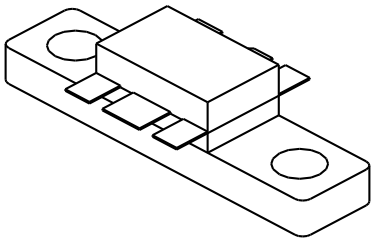
1617AB15

15 Watts PEP, 26 Volts, Class AB
Linear 1600 - 1700 MHz

GENERAL DESCRIPTION

The 1617AB15 is a COMMON EMITTER transistor capable of providing 15 Watts PEP of Class AB, RF output power over the band 1600 - 1700 MHz. This transistor is specifically designed for **SATCOM BASE STATION** amplifier applications. It includes Input prematching and utilizes Gold metalization and HIGH VALUE EMITTER ballasting to provide high reliability and supreme ruggedness.

CASE OUTLINE
55CW
COMMON EMITTER



ABSOLUTE MAXIMUM RATINGS

Maximum Power Dissipation @ 25°C	58 Watts

Maximum Voltage and Current

BVces	Collector to Emitter Voltage	60 Volts
LVceo	Collector to Emitter Voltage	27 Volts
BVebo	Emitter to Base Voltage	3.5 Volts
Ic	Collector Current	6.0 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
P-1dB	Power Out 1 dB comp pt.	F =1700 MHz	15			Watt
Pg	Power Gain	Icq = 100 mAmpsVcc= 26V	10.0	12		dB
IMD_3	Intermod. distortion -3rd	15 W PEP, Two Tone			-32	dBc
VSWR	Load Mismatch Tolerance				6:1	

BVces	Collector to Emitter Breakdown	Ic = 50 mA	60			Volts
LVceo	Collector to EmitterBreakdown	Ic = 50 mA	27			Volts
BVebo	Emitter to Base Breakdown	Ie = 10 mA	3.5			Volts
Ices	Collector Leakage Current	Vce = 26 Volts			10	mA
h_{FE}	DC - Current Gain	Vce = 5 V, Ic =0.5 A	20		100	
Cob	Output Capacitance	F =1 MHz, Vcb = 28 V		20		pF
θ_{jc}	Thermal Resistance	Tc = 25°C			3.0	°C/W

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