

VMIL 100

100 Watts, 28 Volts, Class AB

Defcom 100 - 200 MHz

GENERAL DESCRIPTION

The VMIL100 is an input matched COMMON EMITTER broadband transistor specifically intended for use in the 100-200 MHz frequency band. It may be operated in Class AB or C. Gold metallization and silicon diffused resistors ensure ruggedness and high reliability.

ABSOLUTE MAXIMUM RATINGS

Maximum Power Dissipation @ 25°C 270 Watts

Maximum Voltage and Current

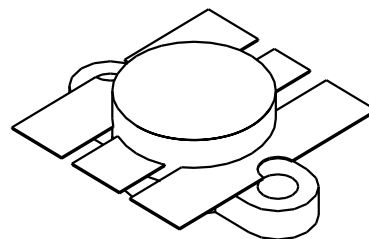
BVces	Collector to Emitter Voltage	65 Volts
BVebo	Emitter to Base Voltage	4.0 Volts
Ic	Collector Current	20 A

Maximum Temperatures

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

CASE OUTLINE

55HV, Style 2



ELECTRICAL CHARACTERISTICS @ 25 °C

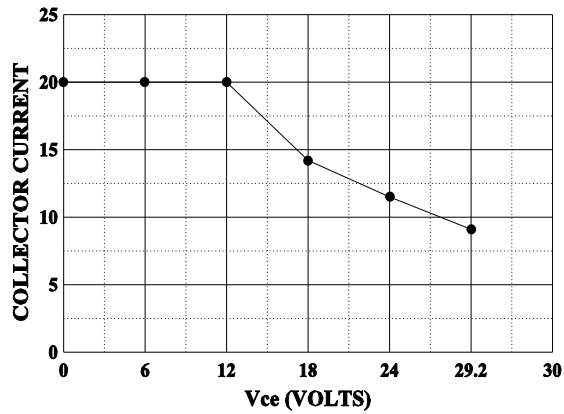
SYMBOL	CHARACTERISTICS	TEST CONDITIONS	MIN	TYP	MAX	UNITS
P_{out}	Power Output	F = 175 MHz	100			Watts
P_{in}	Power Input	V _{cc} = 28 Volts		14	20	Watts
P_g	Power Gain		7.0	8.5		dB
η_c	Efficiency			60		%
VSWR	Load Mismatch Tolerance	P _o =100W, F=175 MHz			30:1	

BVebo	Emitter to Base Breakdown	I _e = 5 mA	4.0			Volts
BVces	Collector to Emitter Breakdown	I _c = 100 mA	65			Volts
BVceo	Collector to Emitter Breakdown	I _e = 50 mA	33			Volts
Cob	Output Capacitance	V _{cb} = 28 V, F = 1 MHz		220		pF
h_{FE}	DC - Current Gain	V _{ce} = 5 V, I _c = 1 A	10			
θ_{jc}	Thermal Resistance				.65	°C/W

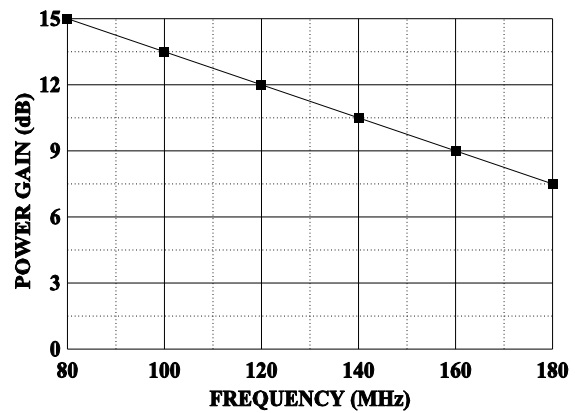
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DC SAFE OPERATING AREA



POWER GAIN VS FREQUENCY



POWER OUTPUT vs POWER INPUT

Vcc= 28V f=200MHz

