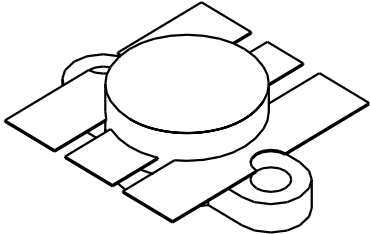


# VMIL 100

100 Watts, 28 Volts, Class AB  
Defcom 100 - 200 MHz

<p><b>GENERAL DESCRIPTION</b> 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.</p>	<p><b>CASE OUTLINE</b> <b>55HV, Style 2</b></p> 
<p><b>ABSOLUTE MAXIMUM RATINGS</b> Maximum Power Dissipation @ 25°C                      270 Watts</p> <p><b>Maximum Voltage and Current</b> BVces Collector to Emitter Voltage                      65 Volts BVebo Emitter to Base Voltage                              4.0 Volts Ic Collector Current    20 A</p> <p><b>Maximum Temperatures</b> Storage Temperature    - 65 to +150°C Operating Junction Temperature                              +150°C</p>	

## ELECTRICAL CHARACTERISTICS @ 25 °C

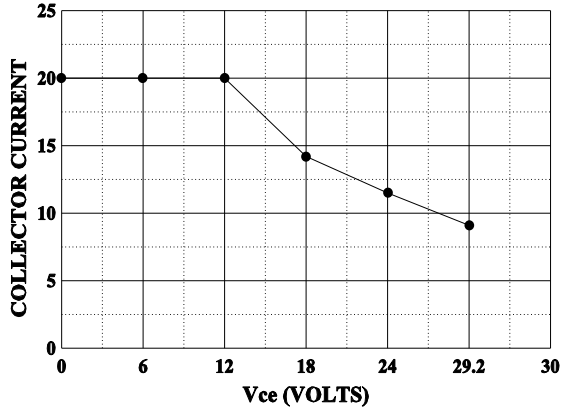
SYMBOL	CHARACTERISTICS	TEST CONDITIONS	MIN	TYP	MAX	UNITS
<b>Pout</b>	Power Output	F = 175 MHz	100			Watts
<b>Pin</b>	Power Input	Vcc = 28 Volts		14	20	Watts
<b>Pg</b>	Power Gain		7.0	8.5		dB
$\eta_c$	Efficiency			60		%
<b>VSWR</b>	Load Mismatch Tolerance	Po=100W, F=175 MHz			30:1	

<b>BVebo</b>	Emitter to Base Breakdown	Ie = 5 mA	4.0			Volts
<b>BVces</b>	Collector to Emitter Breakdown	Ic = 100 mA	65			Volts
<b>BVceo</b>	Collector to Emitter Breakdown	Ie = 50 mA	33			Volts
<b>Cob</b>	Output Capacitance	Vcb = 28 V, F = 1 MHz		220		pF
<b>h<sub>FE</sub></b>	DC - Current Gain	Vce = 5 V, Ic = 1 A	10			
$\theta_{jc}$	Thermal Resistance				.65	°C/W

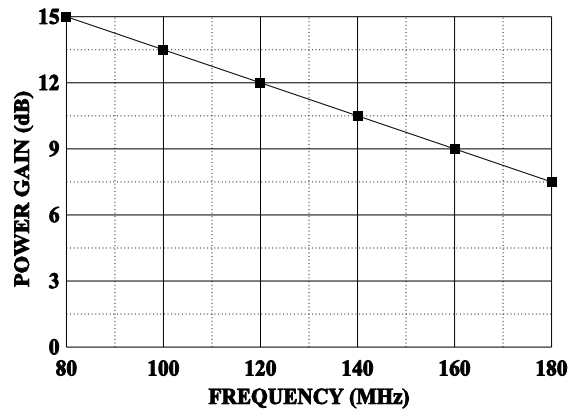
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**DC SAFE OPERATING AREA**



**POWER GAIN VS FREQUENCY**



**POWER OUTPUT vs POWER INPUT**

Vcc= 28V f=200MHz

