

TPR 400

400 Watts, 50 Volts, Pulsed
Avionics 1030 - 1090 MHz

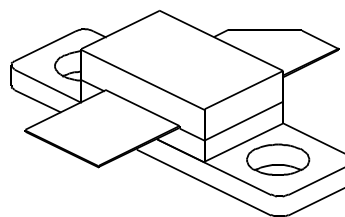
GENERAL DESCRIPTION

The TPR 400 is a high power COMMON BASE bipolar transistor. It is designed for pulsed systems in the frequency band 1030-1090 MHz. The device has gold thin-film metallization for proven highest MTTF. The transistor includes input prematch for broadband capability. Low thermal resistance package reduces junction temperature, extends life.

ABSOLUTE MAXIMUM RATINGS

Maximum Power Dissipation @ 25°C ²	875 Watts
Maximum Voltage and Current	
BVces Collector to Base Voltage	55 Volts
BVebo Emitter to Base Voltage	4.0 Volts
Ic Collector Current	30 Amps
Maximum Temperatures	
Storage Temperature	- 65 to + 150°C
Operating Junction Temperature	+ 200°C

CASE OUTLINE 55CX, STYLE 1



ELECTRICAL CHARACTERISTICS @ 25 °C

SYMBOL	CHARACTERISTICS	TEST CONDITIONS	MIN	TYP	MAX	UNITS
P_{out}	Power Out	F = 1030-1090 MHz	400			Watts
P_{in}	Power Input	V _{cc} = 50 Volts			75	Watts
P_g	Power Gain	PW = 10 μsec	7.27			dB
η_c	Collector Efficiency	DF = 1%		40		%
VSWR	Load Mismatch Tolerance	F = 1090 MHz			20:1	

BVebo	Emitter to Base Breakdown	I _e = 20 mA	4.0			Volts
BVces	Collector to Emitter Breakdown	I _c = 25 mA	55			Volts
h_{FE}	DC - Current Gain	I _c = 2.5 A, V _{ce} = 5 V	10		100	
θ_{jc}²	Thermal Resistance				0.2	°C/W

Note 1: At rated output power and pulse conditions

2: At rated pulse conditions

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