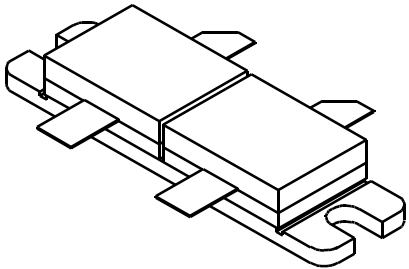


TPR 1000

1000 Watts, 45 Volts, Pulsed
Avionics 1090 MHz

<p>GENERAL DESCRIPTION</p> <p>The TPR 1000 is a high power COMMON BASE bipolar transistor. It is designed for pulsed systems in the frequency band 1090 MHz. The device has gold thin-film metallization for proven highest MTF. The transistor includes input returns for fast rise time. Low thermal resistance package reduces junction temperature, extends life.</p>	<p style="text-align: center;">CASE OUTLINE</p> <p style="text-align: center;">55KV, Style 1</p> <p style="text-align: center;">Common Base</p> <div style="text-align: center;">  </div>
<p>ABSOLUTE MAXIMUM RATINGS</p> <p>Maximum Power Dissipation @ 25°C² 2900 Watts</p> <p>Maximum Voltage and Current</p> <p>BVces Collector to Base Voltage 65 Volts</p> <p>BVebo Emitter to Base Voltage 3.5 Volts</p> <p>Ic Collector Current 80 Amps</p> <p>Maximum Temperatures</p> <p>Storage Temperature - 65 to + 200°C</p> <p>Operating Junction Temperature + 200°C</p>	

ELECTRICAL CHARACTERISTICS @ 25 °C

SYMBOL	CHARACTERISTICS	TEST CONDITIONS	MIN	TYP	MAX	UNITS
Pout	Power Out	F = 1090 MHz	1000			Watts
Pin	Power Input	Vcc = 45 Volts			250	Watts
Pg	Power Gain	PW = 10 μsec	6.0			dB
η_c	Collector Efficiency	DF = 1%		43		%
t_r	Rise Time				70	ns
VSWR¹	Load Mismatch Tolerance	F = 1030 MHz			9:1	

Bvebo^{3,4}	Emitter to Base Breakdown	Ie = 50mA	3.5			Volts
BVces⁴	Collector to Emitter Breakdown	Ic = 100mA	65			Volts
h_{FE}⁴	DC - Current Gain	Ic = 1000mA, Vce = 5 V	10			
θjc²	Thermal Resistance				0.06	°C/W

- Note 1: At rated output power and pulse conditions
 2: At rated pulse conditions
 3: Cannot measure due to input return
 4: Per Side

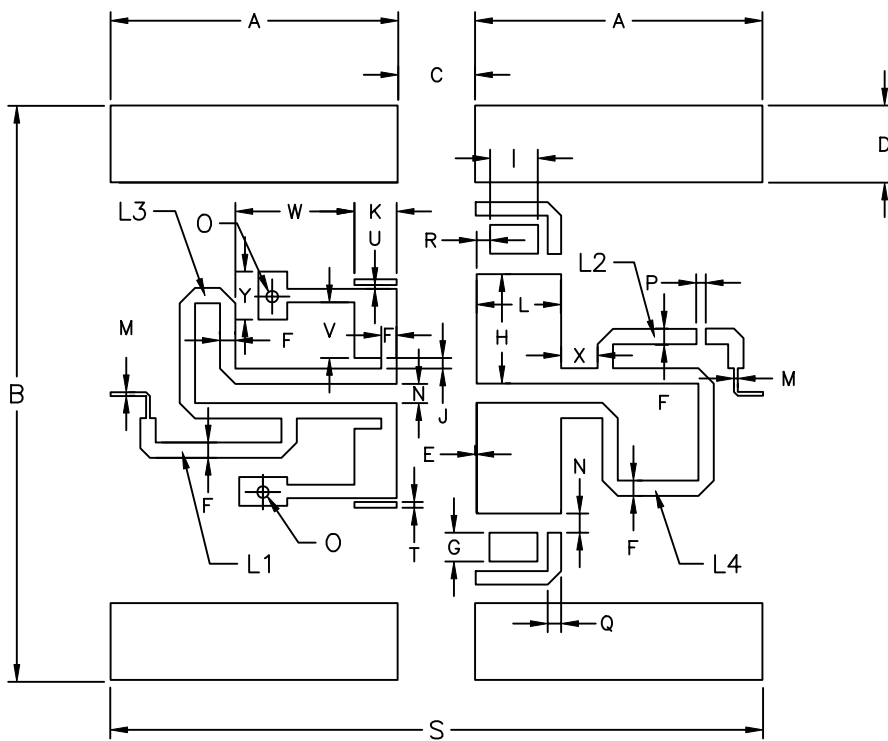
Issue A June 1997

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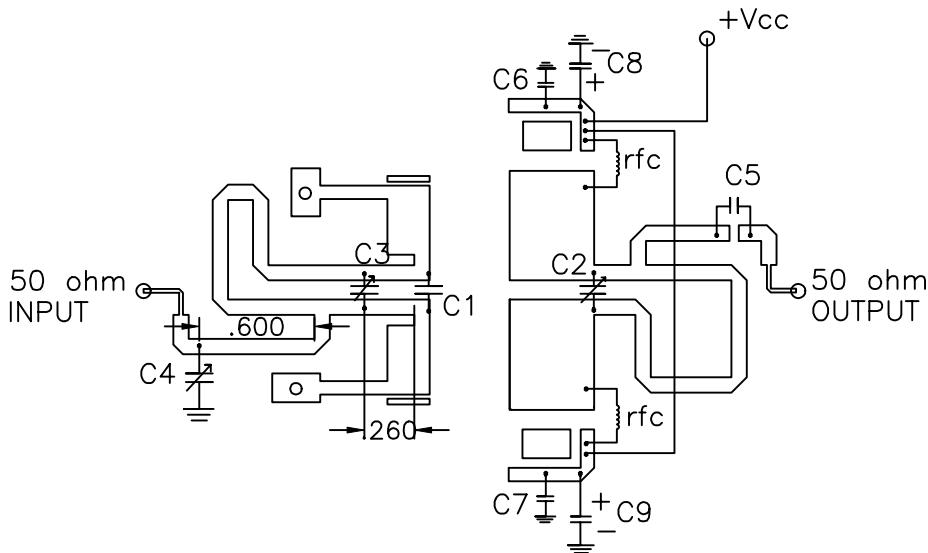
GHz Technology Inc. 3000 Oakmead Village Drive, Santa Clara, CA 95051-0808 Tel. 408 / 986-8031 Fax 408 / 986-8120

REVISIONS

ZONE	REV	DESCRIPTION	DATE	APPROVED
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DIM	INCHES
A	1.500
B	3.000
C	.406
D	.4045
E	.004
F	.080
G	.150
H	.569
I	.254
J	.054
K	.220
L	.440
M	.019
N	.100
O	∅0.060
P	.050
Q	.074
R	.079
S	3.406
T	.030
U	.020
V	.290
W	0.615
X	0.175
Y	0.250
L1, L2	1.05
L3, L4	2.10



- C1=4.7pf ATC B
- C2=1-10pf Voltronics EJ10HV.
- C3,C4=.5-3.5pf Johnson
- C5=47pf ATC B
- C6,C7=82pf ATC B
- C8,C9=250MFD 60v

Board Type :
Ceramic
Er=10.2
Thk=.025inches.



CAGE
0PJR2

DWG NO.

TPR1000

REV -

SCALE

1/1

SHEET