

M-Pulse Microwave

8 Volt, NPN Transistor Medium Power

MP4T80100

Features

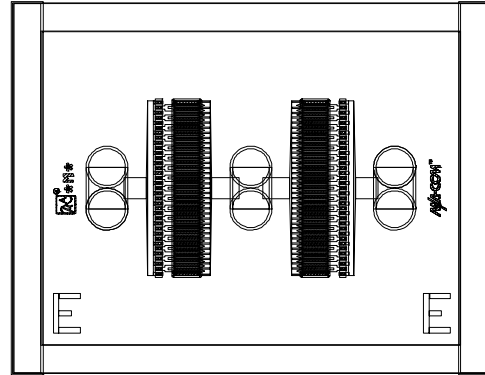
- High Performance at $V_{CE} = 8V$
- .5 watts Class C at 900 MHz
- High f_T (6GHz)

Description

The MP4T80100 series of our medium power high gain npn transistor has a power output of .5 watts at 900 MHz when operated in a class C environment. The typical applied voltage is from 6 to 10 volts, collector to emitter, with a 300mA max collector current.

The MP4T801 family of transistors is available in chip (MP4T80100), 200mil BEO (MP4T801510).

Die Outline MP4T80100



Die size = 350 X 450 uM

Bottom of die is collector.

Specification Subject to Change Without Notice

M-Pulse Microwave

1

576 Charcot Avenue, San Jose, California 95131

Tel (408) 432-1480

Fax (408) 432-3440

Electrical Specifications at 25°C

Symbol	Parameters	Test Conditions	Units	MP4T80100 Chip	MP4T801510 200mil BEO
f_T	Gain Bandwidth Product	$V_{CE} = 8V$ $I_C = 100$ mA	GHz	6 typ.	4 Typ
P out	Power Output Class C	$V_{CE} = 8V$ $I_C = 220$ mA f = .9 GHz	W	.5 typ.	.5 typ.

Maximum Ratings at 25°C

Parameter	Symbol	Maximum Rating
Collector Base Voltage	V_{CBO}	25 V
Collector-Emitter Voltage	V_{CEO}	12 V
Emitter-Base Voltage	V_{EBO}	1.5 V
Collector Current	I_C	300 mA
Junction Temperature	T_j	200°C
Storage Temperature Chips or Ceramic Packages Plastic Packages	T_{STG}	-65°C to +200°C -65°C to +125°C
Power Dissipation	P_D	3.6W

Electrical Specifications at 25°C

Parameters	Conditions	Symbol	Min.	Typ.	Max.	Units
Collector Cut-off Current	$V_{CB} = 8 V$ $I_E = 0$	I_{CBO}	—	—	100	nA
Emitter Cut-off Current	$V_{EB} = 1 V$ $I_C = 0$	I_{EBO}	—	—	1	μA
Forward Current Gain	$V_{CE} = 8 V$ $I_C = 100$ mA	h_{FE}	20	100	200	—

Specification Subject to Change Without Notice

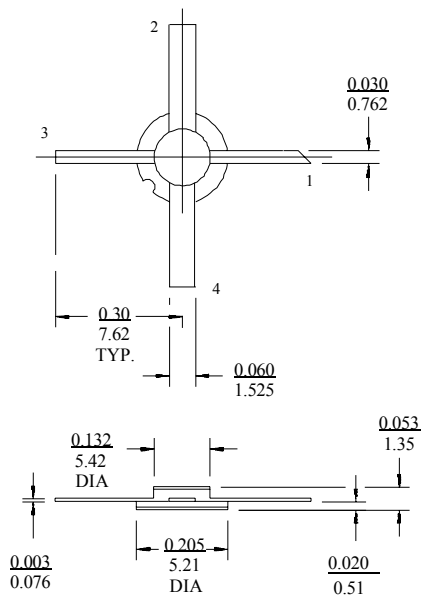
M-Pulse Microwave

2

576 Charcot Avenue, San Jose, California 95131

Tel (408) 432-1480

Fax (408) 432-3440



Notes: (unless otherwise specified)

- 1. Dimensions are in / mm
- 2. Tolerance: in .xxx = ±.005; mm .xx = ±.13

Pin Configuration

Pin Number	Pin Description
1	Collector
2 & 4	Emitter
3	Base

Ordering Information

Model No.	Package
MP4T801510	BeO Ceramic

Specification Subject to Change Without Notice

M-Pulse Microwave

3

576 Charcot Avenue, San Jose, California 95131

Tel (408) 432-1480

Fax (408) 432-3440