

# M-Pulse Microwave

## 8 Volt, NPN Transistor Medium Power

# MP4T80100

### Features

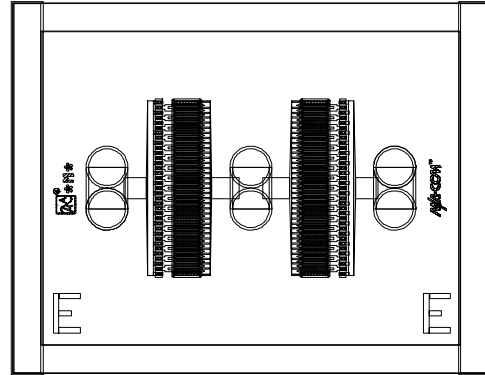
- High Performance at  $V_{CE} = 8V$
- .5 watts Class C at 900 MHz
- High  $f_T$  (6GHz)

### 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

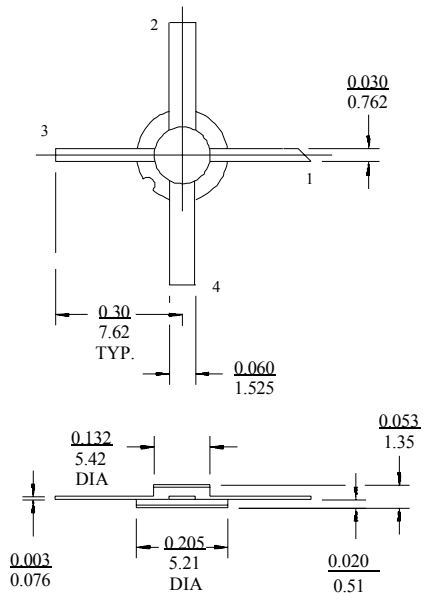
M-Pulse Microwave

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