



TPV5051

NPN SILICON RF POWER TRANSISTOR

DESCRIPTION:

The **TPV5051** is Designed for AB Push Pull, Common Emitter from 470 to 860 MHz Applications.

FEATURES:

- Gold Metalization
- Diffused Ballast Resistor

MAXIMUM RATINGS

I_C	9.0 A
V_{CEO}	30 V
V_{CBO}	45 V
P_{DISS}	97 W @ $T_C = 25\text{ }^\circ\text{C}$
T_J	-65 $^\circ\text{C}$ to +200 $^\circ\text{C}$
T_{STG}	-65 $^\circ\text{C}$ to +150 $^\circ\text{C}$
θ_{JC}	1.8 $^\circ\text{C/W}$

PACKAGE STYLE BMA-2

DIM	MILLIMETER		INCHES	
	MIN	MAX	MIN	MAX
A	20.07	20.57	0.790	0.810
B	6.35	6.85	0.250	0.270
C	4.20	5.02	0.165	0.198
D	1.40	1.65	0.055	0.065
E	1.40	1.65	0.055	0.065
G	1.27	1.77	0.060	0.070
H	1.34	2.43	0.076	0.096
J	0.08	0.12	0.003	0.005
K	4.83	5.33	0.190	0.210
N	6.56	6.80	0.258	0.268
Q	3.18	3.42	0.125	0.135
U	14.03	14.52	0.552	0.572

1 = BASE 2 = BASE 3 = COLLECTOR
4 = COLLECTOR 5 = EMITTER

CHARACTERISTICS $T_C = 25\text{ }^\circ\text{C}$

SYMBOL	TEST CONDITIONS		MINIMUM	TYPICAL	MAXIMUM	UNITS
BV_{CEO}	$I_C = 60\text{ mA}$		30			V
BV_{CBO}	$I_C = 20\text{ mA}$		45			V
BV_{EBO}	$I_E = 6.0\text{ mA}$		4.0			V
BV_{CER}	$I_C = 10\text{ mA}$	$R_{BE} = 50\ \Omega$	40			V
I_{CEO}	$V_{CE} = 28\text{ V}$				10	mA
h_{FE}	$V_{CE} = 20\text{ V}$	$I_C = 800\text{ mA}$	10			---
C_{ob}	$V_{CB} = 28\text{ V}$ $f = 1.0\text{ MHz (EACH SIDE)}$				40	pF
P_G	$V_{CE} = 28\text{ V}$	$P_{out} = 50\text{ W}$	6.5			dB
η_c		$I_q = 2 \times 50\text{ mA}$ $f = 860\text{ MHz}$	45			%