

NPN SILICON RF POWER TRANSISTOR

DESCRIPTION:

The **TPV590** is a Common Emitter Device Designed for Class A High Linearity Amplifier Applications in TV Band IV-V Transmitters.

FEATURES INCLUDE:

- Gold Metallization
- Emitter Ballasting
- High Gain

MAXIMUM RATINGS

I_C	300 mA
V_{CB0}	45 V
P_{DISS}	5.3 W @ T _C = 25 °C
T_J	-65 °C to +200 °C
T_{STG}	-65 °C to +200 °C
q_{JC}	33 °C/W

PACKAGE STYLE 205 4L STUD

DIM	MILLIMETER	TOL	INCHES	TOL
A	25.40	.38	1.000	.015
B	45	5	45	5
C	0.76	.13	.030	.005
D	5.18 DIA	.13	.204 DIA	.005
E	1.19	.13	.047	.005
F	0.13	.02	.005	.001
G	2.92	.13	.115	.005
H	12.83	.38	.505	.015
I	3.30	.13	.130	.005
J	16.18	REF	.637	REF
K	1.52	.13	.060	.005

1 = COLLECTOR 2 & 4 = EMITTER
3 = BASE

CHARACTERISTICS T_C = 25 °C

SYMBOL	TEST CONDITIONS	MINIMUM	TYPICAL	MAXIMUM	UNITS
BV_{CB0}	I _C = 1.0 mA	45			V
BV_{CER}	I _C = 10 mA R _{BE} = 10 Ω	45			V
BV_{EBO}	I _E = 1.0 mA	3.5			V
h_{FE}	V _{CE} = 5 V I _C = 100 mA	20			---
C_{OB}	V _{CB} = 28 V f = 1.0 MHz		2.0	3.0	pF
P_G	V _{CE} = 20 V I _C = 150 mA P _{OUT} = 0.5 W f = 860 MHz	13	14		dB
IMD₃	V _{CE} = 20 V I _C = 150 mA Pref = 0.5 W Vision = -8dB Chroma = -16dB Sound = -10 dB	-58			dBc