

## NPN SILICON RF POWER TRANSISTOR

### DESCRIPTION:

**TPV591** is a Common Emitter Device Designed for High Linearity Class A Television Band IV and V Transmitters.

### FEATURES INCLUDE:

- Gold Metalization
- Emitter Ballasting

### MAXIMUM RATINGS

$I_C$	300 mA
$V_{CB}$	45 V
$P_{DISS}$	5.3 W @ $T_C = 25^\circ C$
$T_J$	$-55^\circ C$ to $+200^\circ C$
$T_{STG}$	$-55^\circ C$ to $+200^\circ C$
$\theta_{JC}$	$33.0^\circ C/W$

**PACKAGE STYLE .280 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 = BASE  
3 & 4 = EMITTER

### CHARACTERISTICS $T_C = 25^\circ C$

SYMBOL	TEST CONDITIONS	MINIMUM	TYPICAL	MAXIMUM	UNITS
$BV_{CEO}$	$I_C = 10$ mA	22			V
$BV_{CBO}$	$I_C = 10$ mA	45			V
$BV_{EBO}$	$I_E = 1.0$ mA	3.5			V
$h_{FE}$	$V_{CE} = 5.0$ V $I_C = 100$ mA	20		200	---
$C_{ob}$	$V_{CB} = 28$ V $f = 1.0$ MHz			3.0	pF
$P_g$	Pref = 0.5 W $f = 860$ MHz SOUND CARRIER = -7.0 dB VISION CARRIER = -8.0 dB      CHROMA = -16 dB	13			dB
IMD	Pref = 0.5 W $f = 860$ MHz $V_{CE} = 20$ V $I_C = 150$ mA      SOUND CARRIER = -7.0 dB VISION CARRIER = -8.0 dB      CHROMA = -16 dB			-58	dB