

# NPN SILICON RF POWER TRANSISTOR

**DESCRIPTION:**

The **ASI TPV3100** is a Class AB Common Device Designed for Television Band IV & V Applications.

**FEATURES INCLUDE:**

- Gold Metalization
- Emitter Ballasting
- Internal Matching

**MAXIMUM RATINGS**

<b>I<sub>C</sub></b>	12 A
<b>V<sub>CC</sub></b>	65 V
<b>P<sub>DISS</sub></b>	215 W @ T <sub>C</sub> = 25 °C
<b>T<sub>J</sub></b>	-55 °C to +200 °C
<b>T<sub>STG</sub></b>	-55 °C to +200 °C
<b>q<sub>JC</sub></b>	0.80 °C/W

**PACKAGE STYLE .450 BAL FLG.(A)**

	MINIMUM Inches/mm	MAXIMUM Inches/mm		MINIMUM Inches/mm	MAXIMUM Inches/mm
		055/1.40	K	008/0.05	006/0.15
B	120/3.05	130/3.30	L	055/1.40	065/1.65
C		785/19.94	M	080/2.03	090/2.41
D	455/11.56	465/11.81	N		195/4.95
E	130/3.30		P	455/11.56	468/11.89
F	830/20.84				
G	128/3.25				
H	838/21.26	850/21.59			
I	1095/27.81	1105/28.07			
J	525/13.34	535/13.59			

1 = Collector    2 = Base  
3 = Emitter

**CHARACTERISTICS** T<sub>C</sub> = 25 °C

SYMBOL	TEST CONDITIONS			MINIMUM	TYPICAL	MAXIMUM	UNITS
<b>BV<sub>CBO</sub></b>	I <sub>C</sub> = 20 mA			65			<b>V</b>
<b>BV<sub>CER</sub></b>	I <sub>C</sub> = 10 mA	R <sub>BE</sub> = 75 Ω		30			<b>V</b>
<b>BV<sub>EBO</sub></b>	I <sub>E</sub> = 10 mA			4.0			<b>V</b>
<b>I<sub>CER</sub></b>	V <sub>CE</sub> = 28 V	R <sub>BE</sub> = 75 Ω				10	<b>mA</b>
<b>h<sub>FE</sub></b>	V <sub>CE</sub> = 10 V	I <sub>C</sub> = 2.0 A		30		120	<b>—</b>
<b>P<sub>1dB</sub></b>	V <sub>CE</sub> = 28 V	I <sub>CQ</sub> = 2X50 mA	Fo = 860 MHz	100			<b>W</b>
<b>P<sub>g</sub></b>	V <sub>CE</sub> = 28 V	I <sub>CQ</sub> = 2X50 mA	Fo = 860 MHz	8.5	9.5		<b>dB</b>