

# NPN SILICON RF POWER TRANSISTOR

**DESCRIPTION:**

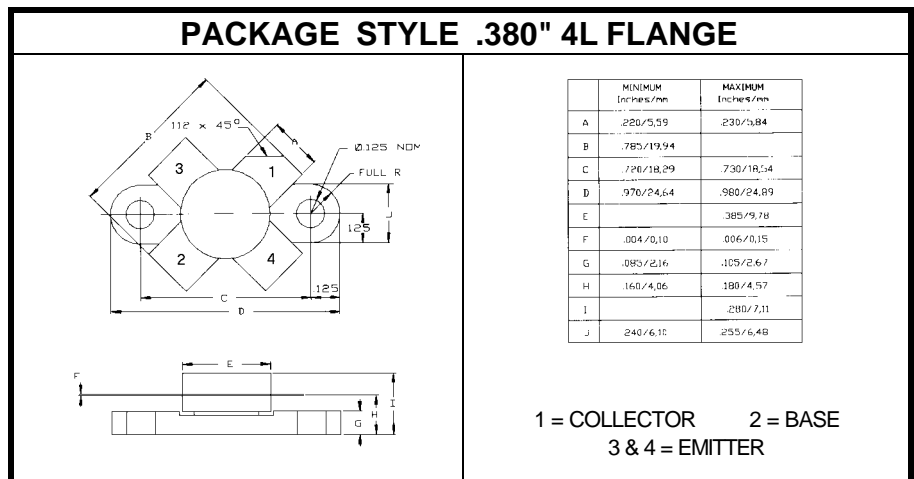
The **HF50-12** is Designed for 12.5 Volt Class AB and Class C Power Amplifier Applications Operating in the 2 to 32 MHz HF Band.

**FEATURES INCLUDE:**

- High Gain, 16 dB Typical @ 30 MHz
- Emitter Ballasting
- Withstands Severe Mismatch

**MAXIMUM RATINGS**

<b>I<sub>C</sub></b>	10 A
<b>V<sub>CB</sub></b>	36 V
<b>V<sub>CE</sub></b>	18 V
<b>V<sub>EB</sub></b>	4.0 V
<b>P<sub>DISS</sub></b>	175 W @ T <sub>C</sub> = 25 °C
<b>T<sub>J</sub></b>	-65 °C to +200 °C
<b>T<sub>STG</sub></b>	-65 °C to +150 °C
<b>q<sub>JC</sub></b>	1.0 °C/W


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

SYMBOL	TEST CONDITIONS	MINIMUM	TYPICAL	MAXIMUM	UNITS
<b>BV<sub>CES</sub></b>	I <sub>C</sub> = 100 mA	36			<b>V</b>
<b>BV<sub>CEO</sub></b>	I <sub>C</sub> = 100 mA	18			<b>V</b>
<b>BV<sub>EBO</sub></b>	I <sub>E</sub> = 10 mA	4.0			<b>V</b>
<b>I<sub>CES</sub></b>	V <sub>CE</sub> = 15 V			10	<b>mA</b>
<b>h<sub>FE</sub></b>	V <sub>CE</sub> = 5.0 V    I <sub>C</sub> = 5.0 A	20			<b>---</b>
<b>C<sub>ob</sub></b>	V <sub>CB</sub> = 12.5 V    f = 1.0 MHz		200		<b>pF</b>
<b>G<sub>PE</sub></b>	V <sub>CC</sub> = 12.5 V    I <sub>CQ</sub> = 50 mA    P <sub>OUT</sub> = 50 W(PEP) f = 30 MHz	15	16		<b>dB</b>
<b>h</b>			55		<b>%</b>
<b>IMD</b>			-30		<b>dB</b>