

# NPN SILICON RF MICROWAVE TRANSISTOR

**DESCRIPTION:**

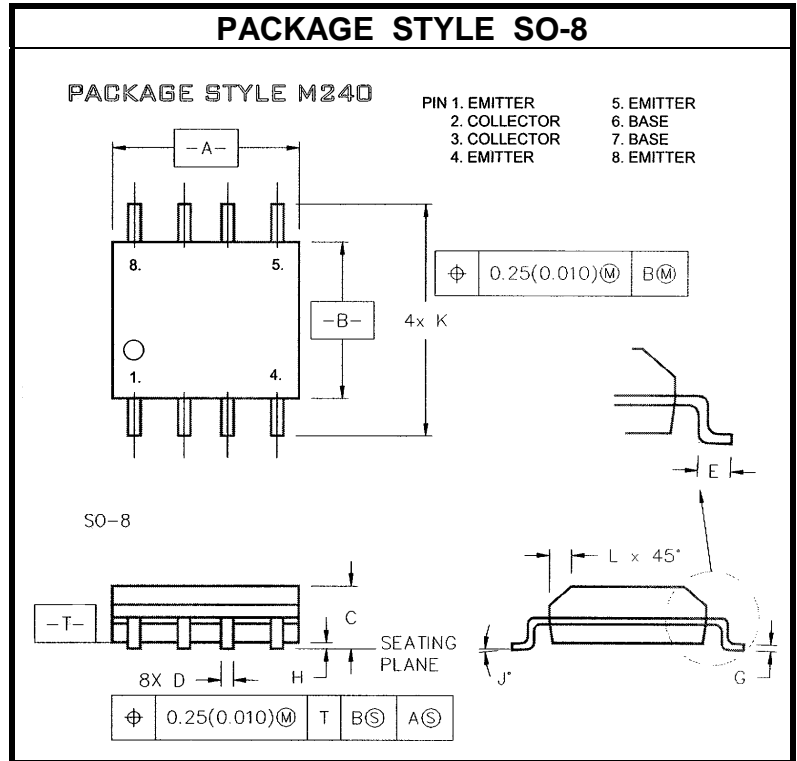
The **ASI MRF5812** is Designed for high current, low power, low noise, amplifiers up to 1.0 GHz.

**FEATURES:**

- Low Noise – 2.5 dB @ 500 MHz
- Ftau – 5.0 GHz @ 10 V, 75 mA
- Cost Effective SO-8 package

**MAXIMUM RATINGS**

<b>I<sub>C</sub></b>	200 mA
<b>V<sub>CB0</sub></b>	30 V
<b>V<sub>CEO</sub></b>	15 V
<b>V<sub>EBO</sub></b>	2.5 V
<b>P<sub>DISS</sub></b>	1.25 W @ T <sub>C</sub> = 25 °C


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

SYMBOL	TEST CONDITIONS		MINIMUM	TYPICAL	MAXIMUM	UNITS
<b>BV<sub>CB0</sub></b>	I <sub>C</sub> = 1.0 mA		30			V
<b>BV<sub>CEO</sub></b>	I <sub>C</sub> = 5.0 mA		15			V
<b>BV<sub>EBO</sub></b>	I <sub>E</sub> = 0.1 mA		2.5			V
<b>I<sub>CB0</sub></b>	V <sub>CB</sub> = 15 V				0.1	mA
<b>I<sub>EBO</sub></b>	V <sub>CE</sub> = 2.0 V				0.1	mA
<b>h<sub>FE</sub></b>	V <sub>CE</sub> = 5.0 V	I <sub>C</sub> = 50 mA	50		200	---
<b>C<sub>OB</sub></b>	V <sub>CB</sub> = 10 V	f = 1.0 MHz		1.4	2.0	pF
<b>F<sub>TAU</sub></b>	V <sub>CE</sub> = 10 V	I <sub>C</sub> = 75 mA		5.0		GHz
<b>NF<sub>min</sub></b>	V <sub>CE</sub> = 10 V	I <sub>C</sub> = 50 mA	f = 500 MHz	2.0	3.0	dB
<b>G<sub>NF</sub></b>				13	15.5	%
<b>G<sub>U max</sub></b>				17.8		dB
<b>MSG</b>				20		dB
<b> S<sub>21</sub> <sup>2</sup></b>				15		dB