

# NPN SILICON LOW NOISE RF TRANSISTOR

**DESCRIPTION:**

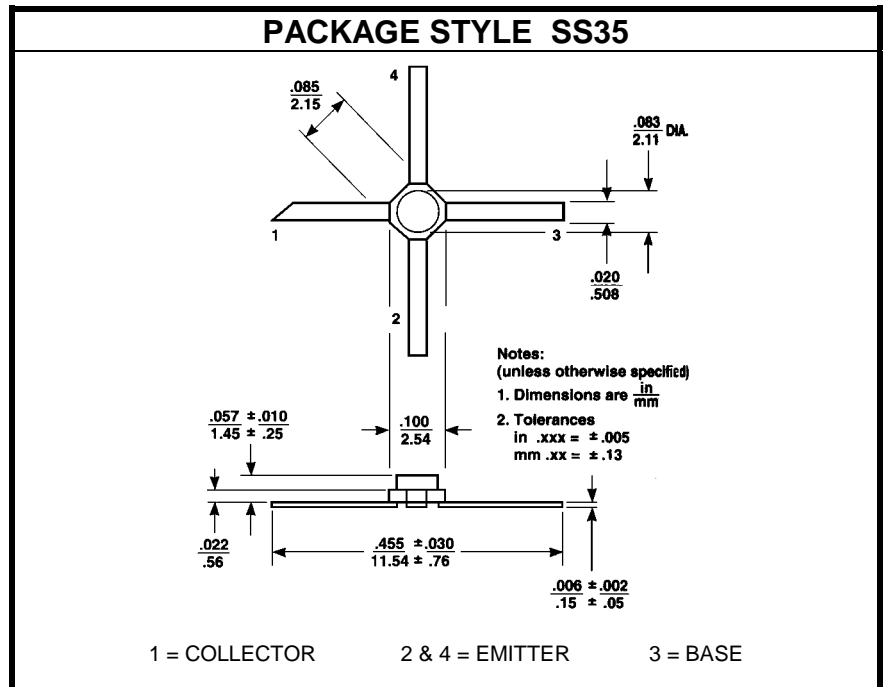
The **ALN68135** is a Common Emitter Device Designed for Low Noise Class A Amplifier Applications up to 4.0 GHz.

**FEATURES INCLUDE:**

- $N_F = 1.6$  dB Typical @ 2 GHz
- $|S_{21}|^2 = 12$  dB Typical @ 2 GHz
- Replacement for **NE68135**

**MAXIMUM RATINGS**

$I_C$	40 mA
$V_{CBO}$	20 V
$V_{CEO}$	12 V
$V_{EBO}$	1.5 V
$P_{DISS}$	290 mW @ $T_A \leq 25^\circ\text{C}$
$T_J$	$-65^\circ\text{C}$ to $+200^\circ\text{C}$
$T_{STG}$	$-65^\circ\text{C}$ to $+150^\circ\text{C}$
$\theta_{JC}$	600 $^\circ\text{C}/\text{W}$


**CHARACTERISTICS**  $T_C = 25^\circ\text{C}$ 

SYMBOL	TEST CONDITIONS			MINIMUM	TYPICAL	MAXIMUM	UNITS
$I_{CBO}$	$V_{CB} = 8.0$ V					200	nA
$I_{EBO}$	$V_{EB} = 1.0$ V					1.0	$\mu\text{A}$
$h_{FE}$	$V_{CE} = 8.0$ V	$I_C = 7.0$ mA		50		250	---
$C_{OB}$	$V_{CB} = 10$ V				0.2	0.7	pF
$f_t$	$V_{CE} = 8.0$ V	$I_C = 20$ mA	$f = 1.0$ GHz	8.0	9.0		GHz
$ S_{21} ^2$	$V_{CE} = 8.0$ V	$I_C = 20$ mA	$f = 2.0$ GHz	9	11		dB
<b>NF</b> <b>GA</b>	$V_{CE} = 8$ V	$I_C = 7.0$ mA	$f = 2.0$ GHz	11	1.6 12	2.3	dB