

# SILICON NPN RF POWER TRANSISTOR

**DESCRIPTION:**

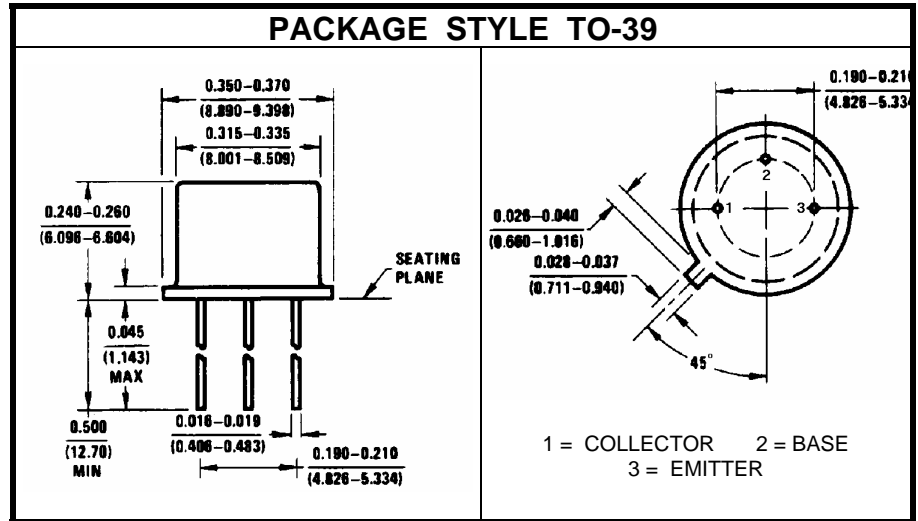
The **ASI SD1127** is designed for VHF mobil communications applications up to 175 MHz.

**FEATURES:**

- Grounded Emitter The **ASI SD1127**
- Gp 12 dB @ 12.5V 175 MHz
- P<sub>out</sub> 4.0 V Min.

**MAXIMUM RATINGS**

I <sub>C</sub>	0.64A
V <sub>CB</sub>	36 V
V <sub>CE</sub>	18 V
P <sub>DISS</sub>	8 W @ T <sub>C</sub> = 25 °C
T <sub>J</sub>	-65 °C to +200 °C
T <sub>STG</sub>	-65 °C to +200 °C
θ <sub>JC</sub>	21.9 °C/W


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

SYMBOL	TEST CONDITIONS		MINIMUM	TYPICAL	MAXIMUM	UNITS
BV <sub>CEO</sub>	I <sub>C</sub> = 10 mA		18			V
BV <sub>CES</sub>	I <sub>C</sub> = 5 mA		36			V
BV <sub>EBO</sub>	I <sub>C</sub> = 1.0 mA		4.0			V
I <sub>CBO</sub>	V <sub>CE</sub> = 15 V				.25	mA
H <sub>FE</sub>	V <sub>CE</sub> = 5.0 V	I <sub>C</sub> = 50 mA	10		100	---
C <sub>OB</sub>	V <sub>CE</sub> = 15 V	f = 1.0 MHz			20	pf
G <sub>PE</sub>	V <sub>CE</sub> = 12.5 V	f = 175 MHz	12			dB
η	V <sub>CE</sub> = 12.5 V	P <sub>PUT</sub> = 4.0 W				
IMPEDANCE	V <sub>CC</sub> = 12.6 V	P <sub>IN</sub> = 0.2 W	f = 136 MHz	Z <sub>IN</sub> = 3.0 - j3.8	Z <sub>CL</sub> = 12.8 - j11	Ω
	V <sub>CC</sub> = 12.6 V	P <sub>IN</sub> = 0.2 W	f = 155 MHz	Z <sub>IN</sub> = 4.0 - j2.0	Z <sub>CL</sub> = 11 - j14.8	
	V <sub>CC</sub> = 12.6 V	P <sub>IN</sub> = 0.2 W	f = 175 MHz	Z <sub>IN</sub> = 4.3 - j5.8	Z <sub>CL</sub> = 13 - j20	