

# SILICON NPN RF POWER TRANSISTOR

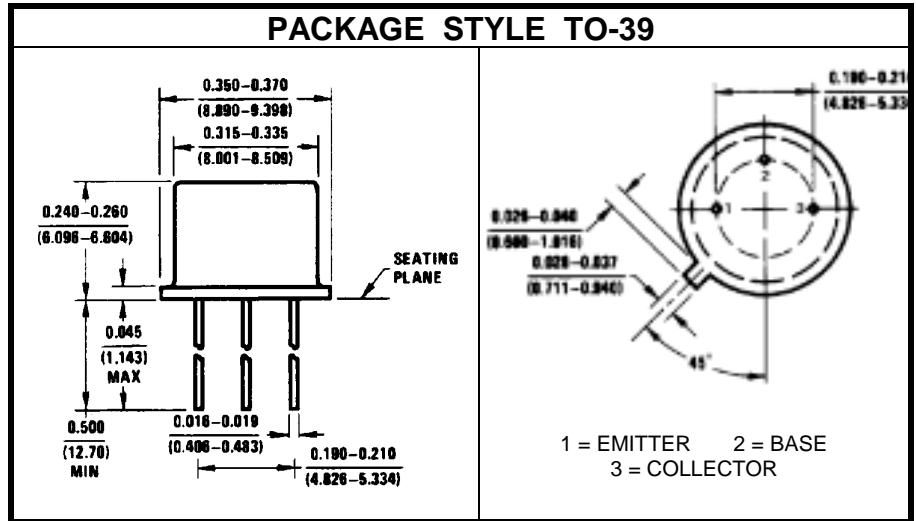
**DESCRIPTION:** The ASI SD1444 is designed for large signal power amplifier applications operating in the 250-512 MHz range.

**FEATURES:**

- Common Emitter
- $P_{OUT} = 4.0$  Watts
- 12.5 Volts

**MAXIMUM RATINGS:**

$I_C$	0.4 A
$V_{CB}$	36 V
$V_{CE}$	16 V
$P_{DISS}$	5.0 W @ $T_C = 25^\circ C$
$T_J$	-65 °C to +200 °C
$T_{STG}$	-65 °C to +200 °C
$\theta_{JC}$	35.0 °C/W



**CHARACTERISTICS**  $T_C = 25^\circ C$

SYMBOL	TEST CONDITIONS	MINIMUM	TYPICAL	MAXIMUM	UNITS
$BV_{CEO}$	$I_C = 50$ mA	16			V
$BV_{CES}$	$I_C = 50$ mA	36			V
$BV_{EBO}$	$I_C = 1.0$ mA	4.0			V
$I_{CBO}$	$V_{CE} = 15$ V			1.0	mA
$H_{FE}$	$V_{CE} = 5.0$ V $I_C = 50$ mA	20		200	---
$C_{OB}$	$V_{CB} = 15.0$ V $f = 1.0$ MHz			15	pF
$G_{PE}$	$V_{CE} = 12.5$ V $P_{OUT} = 2.0$ W $f = 470$ MHz	8.0	15		dB

**IMPEDANCE DATA**

FREQ	$Z_{IN}(\Omega)$	$Z_{CL}(\Omega)$
470 MHz	$2.9 + j0.6$	$15.6 - j10.2$

$P_{OUT} = 2.0$  W  
 $V_{CC} = 12.5$  V