

NPN SILICON RF POWER TRANSISTOR

DESCRIPTION:

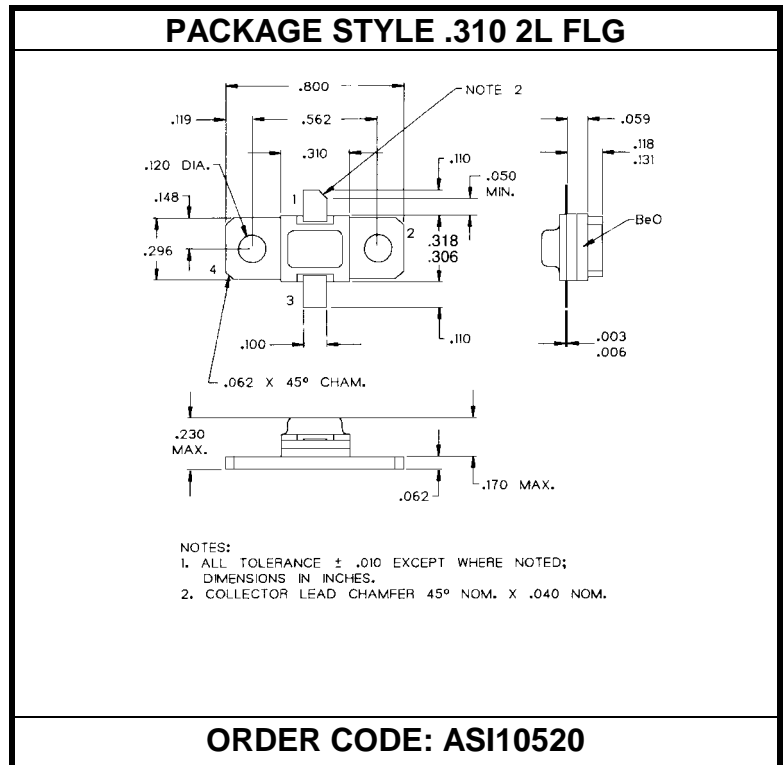
The **ASI ASAT25** is Designed for General Purpose Class Operations up to 1.7 GHz.

FEATURES:

- Internal Input/Output Matching Network
- $P_G = 9.0$ dB at 25 W/1.7 GHz
- **Omnigold™** Metalization System

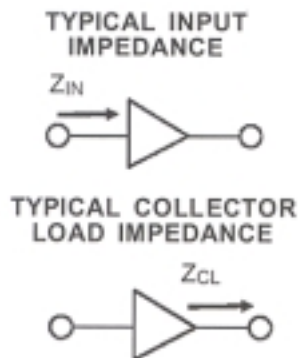
MAXIMUM RATINGS

I_C	2.6 A
V_{CBO}	45 V
V_{CEO}	12 V
V_{EBO}	3.0 V
P_{DISS}	50 W @ $T_C = 25^\circ\text{C}$
T_J	-65°C to $+200^\circ\text{C}$
T_{STG}	-65°C to $+150^\circ\text{C}$
θ_{JC}	3.5 $^\circ\text{C/W}$


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

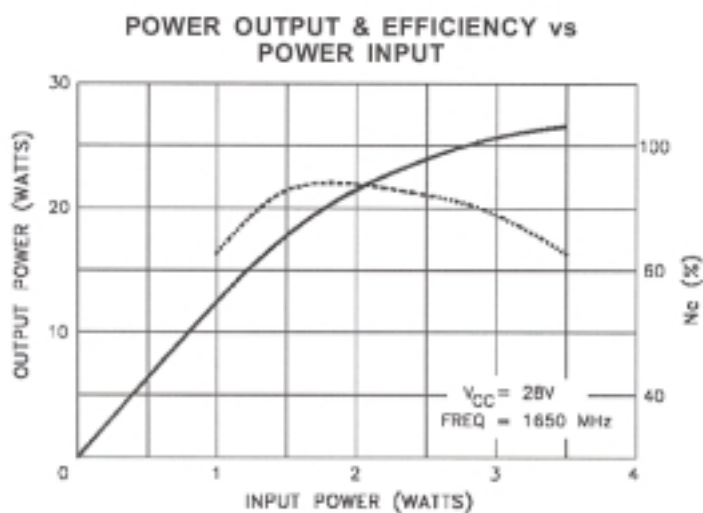
SYMBOL	TEST CONDITIONS			MINIMUM	TYPICAL	MAXIMUM	UNITS
BV_{CBO}	$I_C = 6.0$ mA			45			V
BV_{CEO}	$I_C = 6.0$ mA			12			V
BV_{EBO}	$I_E = 6.0$ mA			3.0			V
h_{FE}	$V_{CE} = 5.0$ V	$I_C = 1.2$ A		15		150	---
P_G	$V_{CC} = 28$ V	$P_{OUT} = 25$ W	$f = 1.65$ GHz	9.0			dB
η_C				50			%

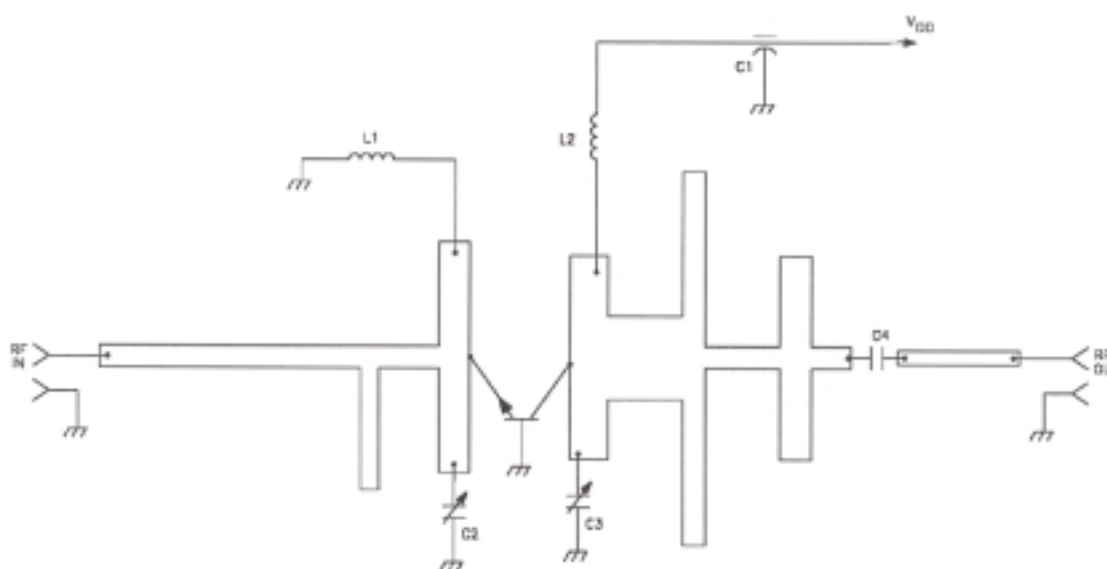
IMPEDANCE DATA



FREQ.	Z _{IN} (Ω)	Z _{CL} (Ω)
1600 MHz	9.0 + j 14.0	11.0 + j 2.0
1650 MHz	11.5 + j 12.0	9.0 + j 4.0
1700 MHz	23.0 + j 8.0	8.0 + j 5.5

TYPICAL PERFORMANCE



TEST CIRCUIT


- C1 : 1500pF Feedthru Capacitor Erie
- C2, C3 : 0.4 - 2.5pF Trim Capacitor Johanson Gigatrim
- C4 : 100pF ATC Chip Capacitor
- L1, L2 : RF Chokes; 3 Turns #22 Wire .100" Diameter