

# NPN SILICON RF POWER TRANSISTOR

**DESCRIPTION:**

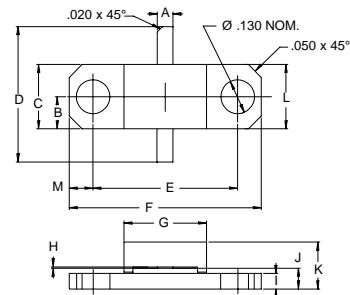
The **ASI ASAT15** is Designed for General Purpose Class Operations up to 1.7 GHz.

**FEATURES:**

- Intenal Input Matching Network
- $P_G = 9.2$  dB at 15 W/1.7 GHz
- **Omnigold™** Metalization System

**MAXIMUM RATINGS**

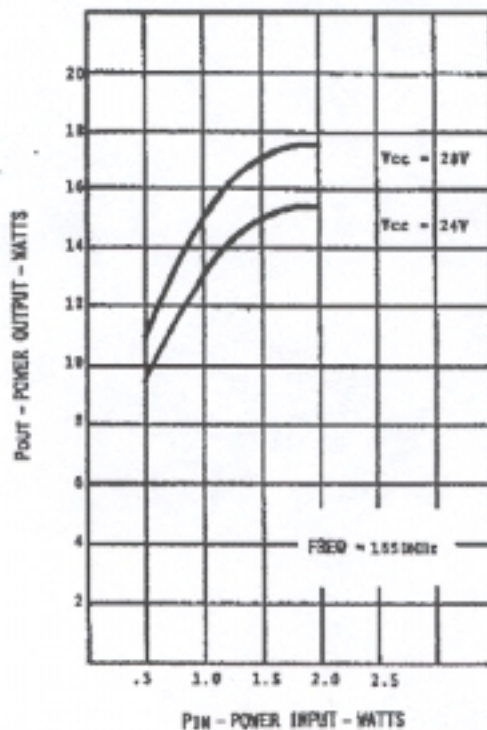
$I_C$	3.0 A
$V_{CBO}$	45 V
$V_{CEO}$	15 V
$V_{EBO}$	3.0 V
$P_{DISS}$	37.2 W
$T_J$	-65 °C to +200 °C
$T_{STG}$	-65 °C to +150 °C
$\theta_{JC}$	4.7 °C/W

**PACKAGE STYLE .250 2L FLG(A)**


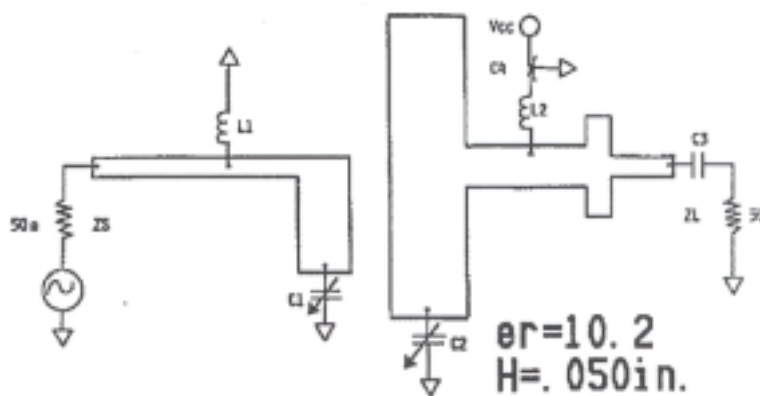
DIM	MINIMUM inches / mm	MAXIMUM inches / mm
A	.055 / 1.40	.065 / 1.65
B	.124 / 3.15	
C	.243 / 6.17	.253 / 6.43
D	.635 / 16.13	.665 / 16.89
E	.555 / 14.10	.565 / 14.35
F	.739 / 18.77	.749 / 19.02
G	.315 / 8.00	.325 / 8.26
H	.002 / 0.05	.006 / 0.15
I	.055 / 1.40	.065 / 1.65
J	.075 / 1.91	.095 / 2.41
K	.190 / 4.83	
L	.245 / 6.22	.255 / 6.48
M	.092 / 2.34	

**ORDER CODE: ASI10518**
**CHARACTERISTICS**  $T_C = 25$  °C

SYMBOL	TEST CONDITIONS	MINIMUM	TYPICAL	MAXIMUM	UNITS
$BV_{CBO}$	$I_C = 5.0$ mA	45			V
$BV_{CEO}$	$I_C = 5.0$ mA	12			V
$BV_{EBO}$	$I_E = 5.0$ mA	3.0			V
$h_{FE}$	$V_{CE} = 5.0$ V $I_C = 1.0$ A	15		150	---
$C_{OB}$	$V_{CB} = 28$ V $f = 1.0$ MHz			12	pF
$P_G$	$V_{CE} = 28$ V $P_{OUT} = 15$ W $f = 1.65$ GHz	9.2			dB
$\eta_c$		45			%

**TYPICAL PERFORMANCE**
**POWER OUTPUT vs POWER INPUT**

**IMPEDANCE DATA**

FREQ.	Z <sub>IN</sub> (Ω)	Z <sub>CL</sub> (Ω)
1.65 GHz	17.0 + j 18.0	3.5 - j 2.0

**TEST CIRCUIT**


- C1, C2 : 0.4 - 2.5pF #27283 Johnson Trimmer
- C3 : 100pF ATC 100A101KCA150 Chip Capacitor
- C4 : 15,000pF EMI Filter Murata/Eria #9900-381-6004
- L1, L2 : 4 Turns, #28 AWG, .080" I.D.

