

# NPN SILICON RF POWER TRANSISTOR

**DESCRIPTION:**

The **ASI 3001** is a common base transistor capable of providing 1 W Class-C RF output power @ 3000 MHz.

**FEATURES:**

- $P_G = 8.5$  dB typ. at 1.0 W / 3,000 MHz
- Diffused Ballast Resistors
- **Omnigold™** Metalization System

**MAXIMUM RATINGS**

$I_C$	200 mA
$V_{CC}$	30 V
$P_{DISS}$	5.0 W @ $T_C = 25$ °C
$T_J$	-65 °C to +200 °C
$T_{STG}$	-65 °C to +200 °C
$\theta_{JC}$	3.5 °C/W

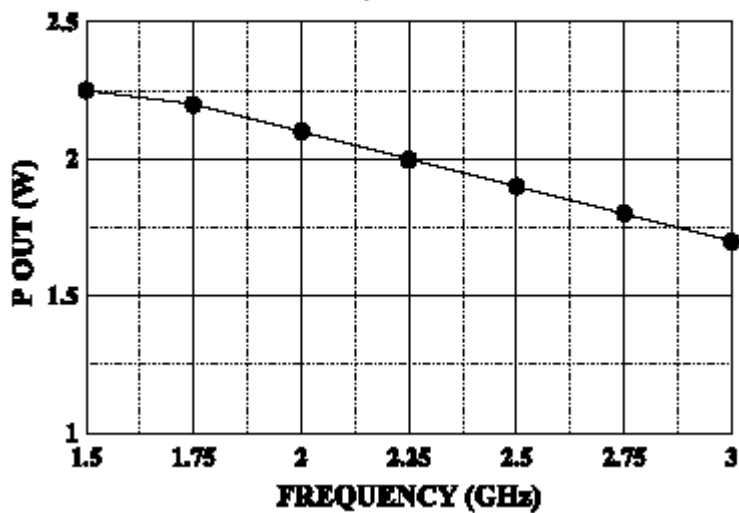
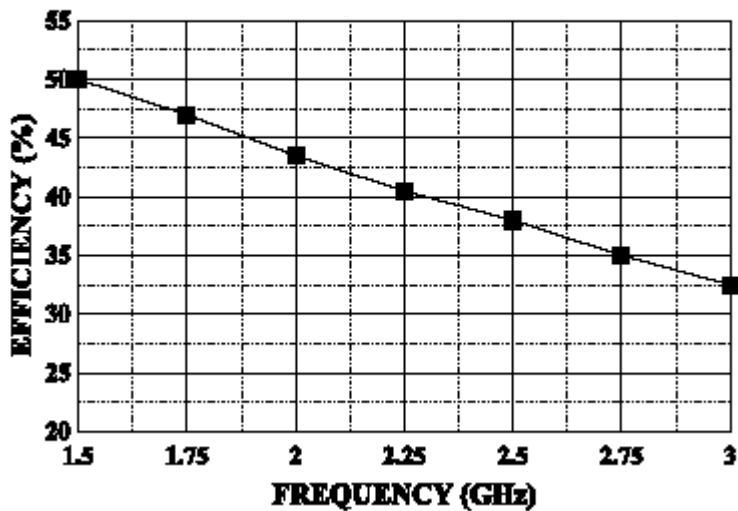
**PACKAGE STYLE .250 2L FLG**

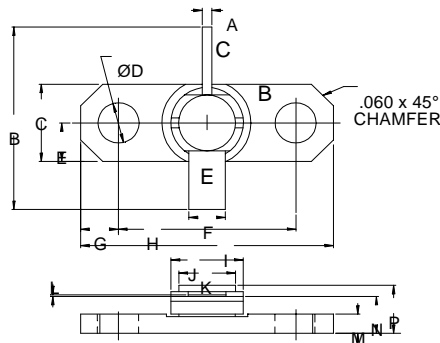
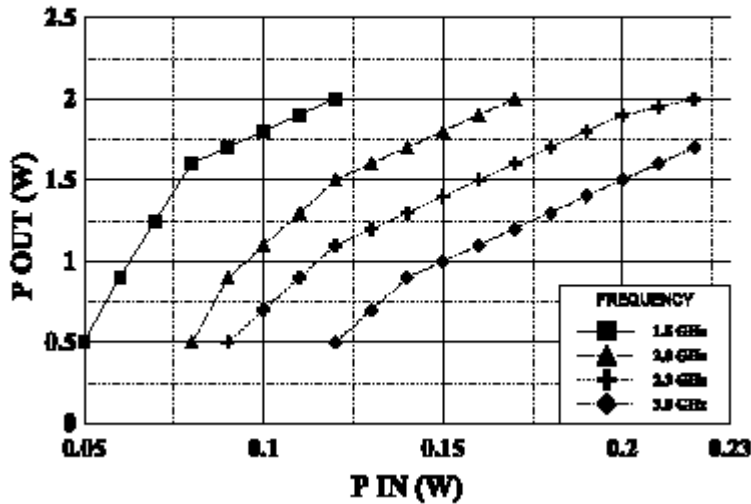
DIM	MINIMUM inches / mm	MAXIMUM inches / mm
A	.028 / 0.71	.032 / 0.81
B	.740 / 18.80	
C	.245 / 6.22	.255 / 6.48
D	.128 / 3.25	.132 / 3.35
E	.125 / 3.18	
F	.110 / 2.79	.117 / 2.97
G	.117 / 2.97	
H	.560 / 14.22	.570 / 14.48
I	.790 / 20.07	.810 / 20.57
J	.225 / 5.72	.235 / 5.97
K	.165 / 4.19	.185 / 4.70
L	.003 / 0.08	.007 / 0.18
M	.058 / 1.47	.068 / 1.73
N	.119 / 3.02	.135 / 3.43
P	.149 / 3.78	.187 / 4.75

**ORDER CODE: ASI10538**

**CHARACTERISTICS**  $T_C = 25$  °C

SYMBOL	TEST CONDITIONS	MINIMUM	TYPICAL	MAXIMUM	UNITS
$BV_{CBO}$	$I_C = 1.0$ mA	45			V
$BV_{CER}$	$I_C = 5.0$ mA $R_{BE} = 10$ Ω	45			V
$BV_{EBO}$	$I_E = 1.0$ mA	3.5			V
$I_{CBO}$	$V_{CB} = 28$ V			0.5	mA
$h_{FE}$	$V_{CE} = 5.0$ V $I_C = 100$ mA	10		300	---
$C_{OB}$	$V_{CB} = 28$ V $f = 1.0$ MHz			3.5	pF
$P_G$	$V_{CC} = 28$ V $P_{OUT} = 1.0$ W $f = 3.0$ GHz	7.0	8.5		dB
$\eta_c$	$P_{IN} = 0.14$ W		30		%
VSWR				30:1	---

**POWER OUTPUT VS FREQUENCY**
 $V_{cc}=28V, P_{in}=0.2W$ 

**EFFICIENCY VS FREQUENCY**
 $P_{in}=0.2W, V_{cc}=28V$ 


***Port VS Pin VS FREQUENCY***
**V<sub>CC</sub>=28V, P<sub>IN</sub>=0.2W**


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