

# NPN SILICON RF POWER TRANSISTOR

**DESCRIPTION:**

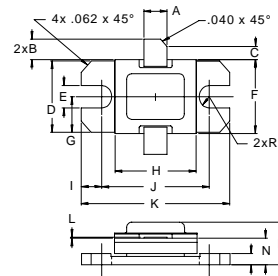
The **ASI AVF600** is a high power pulsed transistor, designed for JFF avionics applications. It is designed for operation under short pulse width & low cycle and capable of withstanding 25:1 load mismatch.

**FEATURES:**

- Internal Input/Output Matching Networks
- $P_G = 5.6$  dB at 600W/1090 MHz
- **Omnigold™** Metalization System
- CB operation
- 25:1 VSWR capability

**MAXIMUM RATINGS**

$I_C$	43 A
$V_{CC}$	55 V
$P_{DISS}$	1670 W @ $T_C = 25$ °C
$T_J$	-65 °C to +250 °C
$T_{STG}$	-65 °C to +200 °C
$\theta_{JC}$	0.09 °C/W

**PACKAGE STYLE .400 2L FLG (A)**


DIM	MINIMUM inches / mm	MAXIMUM inches / mm
A	.135 / 3.43	.145 / 3.68
B	.100 / 2.54	.120 / 3.05
C	.050 / 1.27	
D	.376 / 9.55	.396 / 10.06
E	.110 / 2.79	.130 / 3.30
F	.395 / 10.03	.407 / 10.34
G	.193 / 4.90	
H	.490 / 12.45	.510 / 12.95
I	.100 / 2.54	
J	.690 / 17.53	.710 / 18.03
K	.890 / 22.61	.910 / 23.11
L	.003 / 0.08	.006 / 0.18
M	.052 / 1.32	.072 / 1.83
N	.118 / 3.00	.131 / 3.33
P		.230 / 5.84

**ORDER CODE: ASI10576**
**CHARACTERISTICS**  $T_C = 25$  °C

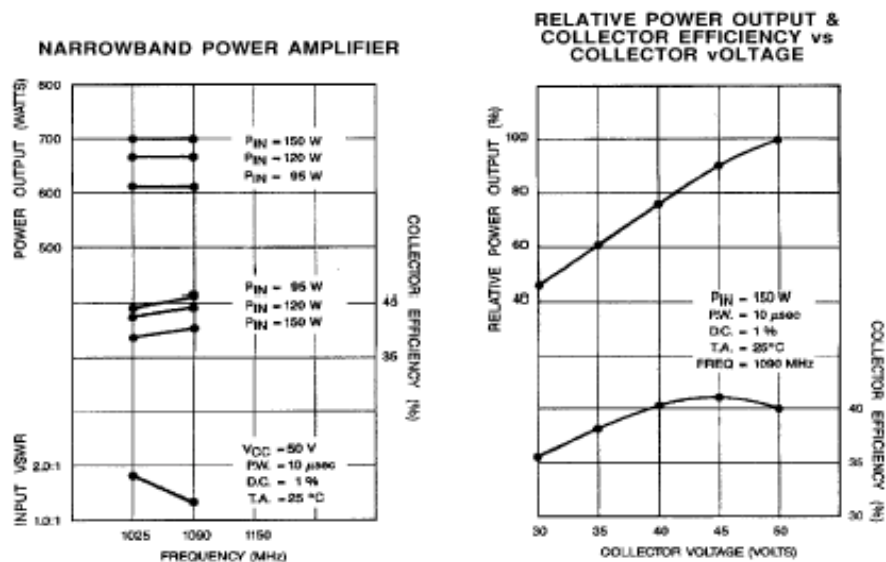
SYMBOL	TEST CONDITIONS	MINIMUM	TYPICAL	MAXIMUM	UNITS
$BV_{CBO}$	$I_C = 25$ mA	65			V
$BV_{CER}$	$I_C = 50$ mA $R_{BE} = 10$ Ω	65			V
$BV_{EBO}$	$I_E = 5.0$ mA	3.5			V
$I_{CES}$	$V_{CE} = 50$ V			60	mA
$h_{FE}$	$V_{CE} = 5.0$ V $I_C = 2.0$ A	10		250	---
$P_G$	$V_{CC} = 50$ V $P_{OUT} = 600$ W $f = 1030 - 1090$ MHz	6.0			dB
$\eta_c$	$P_{IN} = 150$ W	35			%

Pulse width = 10 μsec, Duty Cycle = 1.0 %

## IMPEDANCE DATA

FREQ	$Z_{IN}(\Omega)$	$Z_{CL}(\Omega)$
1025 MHz	$3.7 + j4.5$	$0.9 - j1.6$
1090 MHz	$4.3 + j1.6$	$1.0 - j2.3$
1150 MHz	$2.8 + j1.6$	$0.8 - j2.0$

$P_{IN} = 150 \text{ W}$   
 $V_{CC} = 50 \text{ V}$



## MAXIMUM THERMAL RESISTANCE vs PULSE WIDTH & DUTY CYCLE

