

# NPN SILICON RF POWER TRANSISTOR

**DESCRIPTION:**

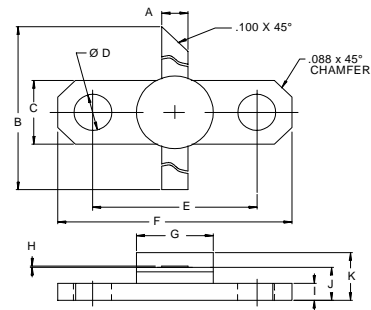
The **ASI AVF100** is a high power Class-C transistor designed for IFF/DME/TACAN Applications in 1025-1150 MHz.

**FEATURES:**

- 50 V operation
- Internal Input/Output Matching Networks
- $P_G = 8.4$  dB at 90 W/1090 MHz
- **Omnigold™** Metalization System
- Common Base configuration

**MAXIMUM RATINGS**

$I_C$	10 A
$V_{CBO}$	65 V
$V_{CES}$	65 V
$P_{DISS}$	292 W @ $T_C = 25$ °C
$T_J$	-65 °C to +200 °C
$T_{STG}$	-65 °C to +150 °C
$\theta_{JC}$	0.60 °C/W

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


DIM	MINIMUM inches / mm	MAXIMUM inches / mm
A	.095 / 2.41	.105 / 2.67
B	1.050 / 26.67	
C	.245 / 6.22	.255 / 6.48
D	.120 / 3.05	.140 / 3.56
E	.552 / 14.02	.572 / 14.53
F	.790 / 20.07	.810 / 20.57
G		.285 / 7.24
H	.003 / 0.08	.007 / 0.18
I	.052 / 1.32	.072 / 1.83
J	.120 / 3.05	.130 / 3.30
K		.210 / 5.33

**ORDER CODE: ASI10569**
**CHARACTERISTICS**  $T_C = 25$  °C

SYMBOL	TEST CONDITIONS	MINIMUM	TYPICAL	MAXIMUM	UNITS
$BV_{CBO}$	$I_C = 50$ mA	65			V
$BV_{CER}$	$I_C = 50$ mA $R_{BE} = 10$ $\Omega$	65			V
$BV_{EBO}$	$I_E = 1.0$ mA	3.5			V
$I_{CES}$	$V_{CE} = 50$ V			100	mA
$h_{FE}$	$V_{CE} = 5.0$ V $I_C = 100$ mA	10		200	---
$C_{ob}$	$V_{CB} = 28$ V $f = 1.0$ MHz			80	pF
$P_G$ $\eta_c$	$V_{CC} = 40$ V $P_{OUT} = 90$ W $f = 1025 - 1150$ MHz $P_{IN} = 13$ W	8.4 35			dB %

Pulse Width = 10  $\mu$ sec, Duty Cycle = 1 %

**IMPEDANCE DATA**

FREQ	$Z_{IN}(\Omega)$	$Z_{CL}(\Omega)$
960	$2.8 + j7.5$	$6.4 - j1.3$
1050	$3.9 + j8.2$	$5.8 - j1.4$
1150	$4.3 + j4.3$	$5.0 - j0.0$
1215	$4.9 + j4.3$	$4.8 - j0.0$

$P_{IN} = 13 \text{ W}$   
 $V_{CE} = 50 \text{ V}$