

NPN SILICON RF POWER TRANSISTOR

DESCRIPTION:

The **ASI AVF250** is a high power Class-C transistor designed for IFF/BME/TACAN applications in 1025-1150 MHz range.

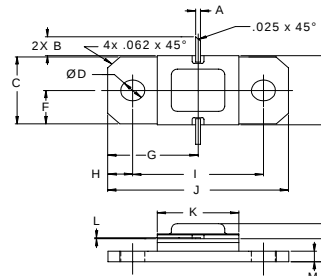
FEATURES:

- 50 V operation
- Internal Input/Output Matching Networks
- $P_G = 8.0$ dB at 250 W/1090 MHz
- **Omnigold™** Metalization System
- 5:1 VSWR capability

MAXIMUM RATINGS

I_C	20 A
V_{CC}	50 V
P_{DISS}	575 W @ $T_C = 25^\circ\text{C}$
T_J	-65°C to $+250^\circ\text{C}$
T_{STG}	-65°C to $+200^\circ\text{C}$
θ_{JC}	0.28 $^\circ\text{C/W}$

PACKAGE STYLE .400 2NL FLG



DIM	MINIMUM inches / mm	MAXIMUM inches / mm
A	.020 / 0.51	.030 / 0.76
B	.100 / 2.54	
C	.376 / 9.55	.396 / 10.06
D	.110 / 2.79	.130 / 3.30
E	.395 / 10.03	.407 / 10.34
F		.193 / 4.90
G		.450 / 11.43
H		.125 / 3.18
I	.640 / 16.26	.660 / 16.76
J	.890 / 22.61	.910 / 23.11
K	.395 / 10.03	.415 / 10.54
L	.004 / 0.10	.007 / 0.18
M	.052 / 1.32	.072 / 1.83
N	.118 / 3.00	.131 / 3.33
P		.230 / 5.84

ORDER CODE: ASI10571

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

SYMBOL	TEST CONDITIONS	MINIMUM	TYPICAL	MAXIMUM	UNITS
BV_{CBO}	$I_C = 35$ mA	65			V
BV_{CES}	$I_C = 25$ mA	60			V
BV_{EBO}	$I_E = 15$ mA	4.0			V
I_{CES}	$V_{CE} = 50$ V			20	mA
h_{FE}	$V_{CE} = 5.0$ V $I_C = 1.0$ A	10		200	---
P_G	$V_{CC} = 50$ V $P_{OUT} = 250$ W $f = 1030 - 1090$ MHz	8.5			dB
η_c	$P_{IN} = 40$ W	38			%

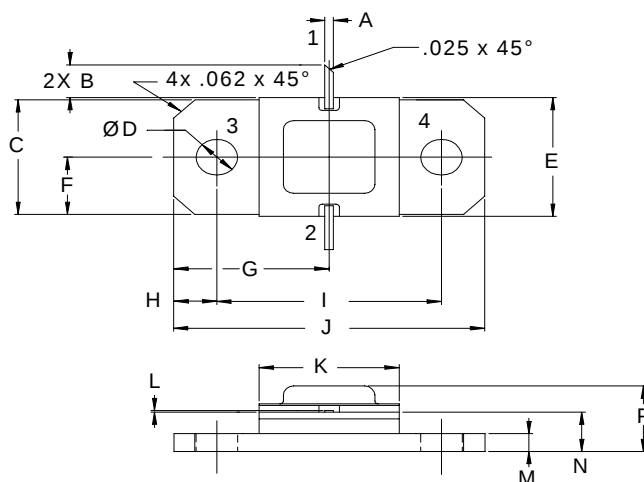
Pulse Width = 20 μs , Duty Cycle = 5 %

IMPEDANCE DATA

FREQ	$Z_{IN} (\Omega)$	$Z_{CL} (\Omega)$
960	$1.0 + j3.5$	$1.9 - j1.8$
1090	$4.0 + j3.5$	$1.6 - j0.9$
1215	$2.2 + j2.2$	$1.4 - j1.1$

$P_{IN} = 40 \text{ W}$

$V_{CE} = 50 \text{ V}$



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1 = Collector

2 = Base

3 & 4 = Emitter