

NPN SILICON RF POWER TRANSISTOR

DESCRIPTION:

The **ASI TVU025** is a gold metalized RF power transistor designed for high linearity Calss-AB operation in UHF band IV and V TV transmitters.

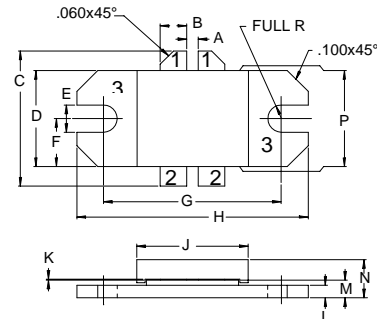
FEATURES:

- Common Emitter
- $P_G = 9.0$ dB at 25 W/860 MHz
- **Omnigold™** Metalization System
- Internal Input Matching
- 28 V operations

MAXIMUM RATINGS

I_C	8.0 A
V_{CB0}	45 V
V_{CEO}	30 V
V_{EBO}	3.0 V
P_{DISS}	135 W @ $T_C = 25$ °C
T_J	-50 °C to +200 °C
T_{STG}	-50 °C to +150 °C
θ_{JC}	1.3 °C/W

PACKAGE STYLE .450 BAL FLG(A)



DIM	MINIMUM inches / mm	MAXIMUM inches / mm
A	.055 / 1.40	
B	.120 / 3.05	.130 / 3.30
C	.785 / 19.94	
D	.455 / 11.56	.465 / 11.81
E	.120 / 3.05	.130 / 3.30
F	.230 / 5.84	
G	.838 / 21.28	.850 / 21.59
H	1.095 / 27.81	1.105 / 28.07
J	.525 / 13.34	.535 / 13.59
K	.002 / 0.05	.005 / 0.15
L	.055 / 1.40	.065 / 1.65
M	.080 / 2.03	.095 / 2.41
N	.195 / 4.95	
P	.445 / 11.30	.455 / 11.56

1 = Collector 2 = Base 3 = Emitter

ORDER CODE: ASI10650

CHARACTERISTICS $T_C = 25$ °C

SYMBOL	TEST CONDITIONS	MINIMUM	TYPICAL	MAXIMUM	UNITS
BV_{CB0}	$I_C = 50$ mA	45			V
BV_{CEO}	$I_C = 200$ mA	30			V
BV_{EBO}	$I_E = 10$ mA	3.0			V
I_{CEO}	$V_{CE} = 25$ V			5.0	mA
h_{FE}	$V_{CE} = 5.0$ V $I_C = 3.0$ A	10		80	---
C_{OB}	$V_{CB} = 28$ V $f = 1.0$ MHz		70		pF

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

SYMBOL	TEST CONDITIONS			MINIMUM	TYPICAL	MAXIMUM	UNITS
P_G IMD_1	$V_{CE} = 25\text{ V}$ $P_{OUT} = 25\text{ W}$	$I_C = 3.2\text{ A}$ $P_{IN} = 3.95\text{ W}$	$f = 860\text{ MHz}$	8.0		-45	dB dBc

IMPEDANCE DATA

FREQ	$Z_{IN} (\Omega)$	$Z_{CL} (\Omega)$
470 MHz	$7.5 + j9.5$	$2.5 + j7.5$
590 MHz	$8.2 + j7.5$	$15.6 - j0.13$
710 MHz	$6.6 + j6.2$	$11.9 - j0.28$
860 MHz	$4.7 + j3.0$	$6.7 - j0.38$

$P_{out} = 25\text{ W}$
 $V_{CE} = 25\text{ V}$
 $I_C = 3.2\text{ A}$