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.

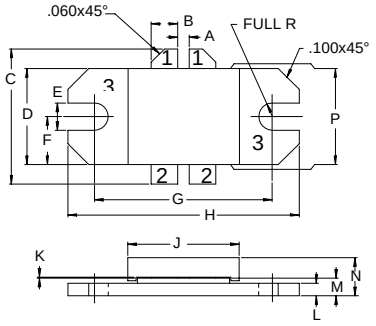
FEATURES:

- 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_{CBO}	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_{CBO}	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 °C

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

IMPEDANCE DATA

FREQ	Z_{IN} (Ω)	Z_{CL} (Ω)
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 W
V_{CE} = 25 V
I_C = 3.2 A