

NPN SILICON RF POWER TRANSISTOR

DESCRIPTION:

The **ASI TVU012** is a common emitter RF bipolar transistor capable of providing 12 W, peak, Class-A, RF power output over 470-860 MHz. It utilizes input impedance matching to provide broadband performance.

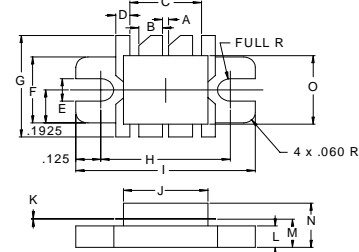
FEATURES:

- 470-860 MHz operation
- Input Matching Network
- Common emitter
- **Omnigold™** Metalization System with eutectic die bonding

MAXIMUM RATINGS

I_C	3.5 A
V_{CE(S)}	45 V
V_{CE}	28 V
P_{DISS}	80 W @ T _C = 25 °C
T_J	-65 °C to +200 °C
T_{STG}	-65 °C to +150 °C
θ_{JC}	1.6 °C/W

PACKAGE STYLE .400 8L FLG



DIM	MINIMUM inches / mm	MAXIMUM inches / mm
A	.030 / 0.76	
B	.115 / 2.92	.125 / 3.18
C	.360 / 9.14	
D	.065 / 1.65	.075 / 1.91
E	.130 / 3.30	
F	.380 / 9.65	.390 / 9.91
G	.735 / 18.67	.765 / 19.43
H	.645 / 16.38	.655 / 16.64
I	.895 / 22.73	.905 / 22.99
J	.420 / 10.67	.430 / 10.92
K	.003 / 0.08	.007 / 0.18
L	.120 / 3.05	.130 / 3.30
M	.159 / 4.04	.175 / 4.45
N	.280 / 7.11	
O	.395 / 10.03	.405 / 10.29

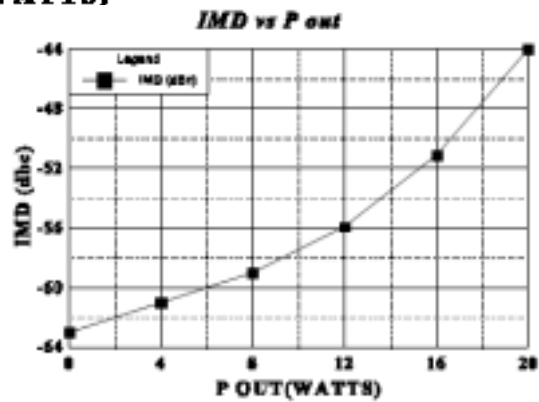
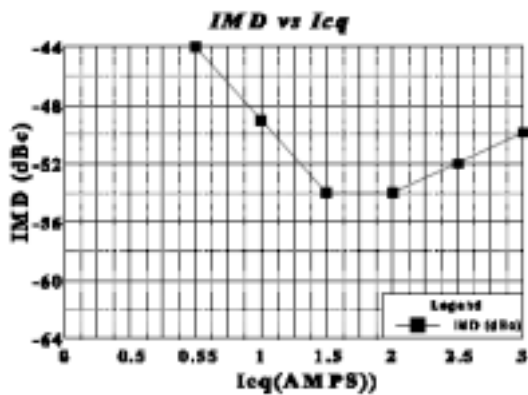
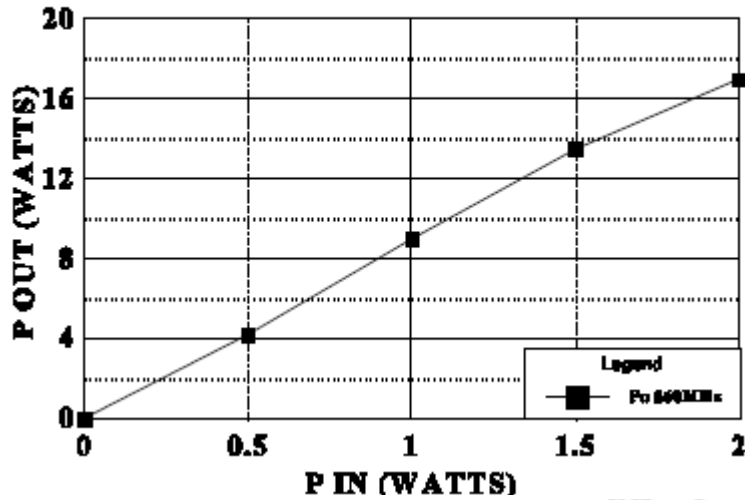
ORDER CODE: ASI10646

CHARACTERISTICS T_C = 25 °C

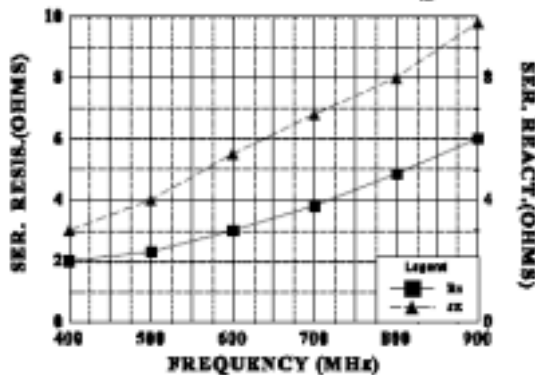
SYMBOL	TEST CONDITIONS	MINIMUM	TYPICAL	MAXIMUM	UNITS
BV_{CEO}	I _C = 65 mA	28			V
BV_{CES}	I _C = 25 mA	45			V
BV_{EBO}	I _E = 10 mA	4.0			V
h_{FE}	V _{CE} = 5.0 V I _C = 500 mA	10		100	---
P_G IMD₁	V _{CE} = 26.5 V I _C = 2 X 0.85 mA f = 860 MHz P _{OUT} = 12 W P _{IN} = 1.55 W f = 470-860 MHz	8.9	9.5	-52	dB dBc
C_{OB}	V _{CB} = 26 V f = 1.0 MHz		23		pF
VSWR				3:1	---

POWER OUTPUT vs POWER INPUT

Vcc = 26.5 Frequency 860MHz



SERIES INPUT IMPEDANCE vs FREQUENCY



SERIES LOAD IMPEDANCE vs FREQUENCY

