

NPN SILICON RF POWER TRANSISTOR

DESCRIPTION:

The **ASI AJT030** is a Class-c RF power transistor, designed for JTIDS pulsed output & driver applications from 960 to 1215 MHz.

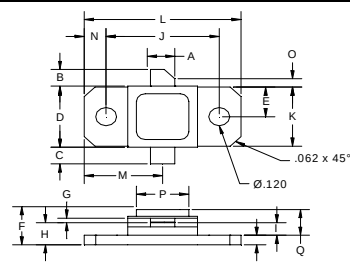
FEATURES:

- Internal Input/Output Matching Network
- $P_G = 7.8$ dB at 30 W/ 1215 MHz
- **Omnigold™** Metalization System

MAXIMUM RATINGS

I_C	3.5 A
V_{CC}	40 V
P_{DISS}	75 W @ $T_C \leq 85^\circ\text{C}$
T_J	-65 °C to +250 °C
T_{STG}	-65 °C to +200 °C
θ_{JC}	2.2 °C/W

PACKAGE STYLE .400 2L FLG



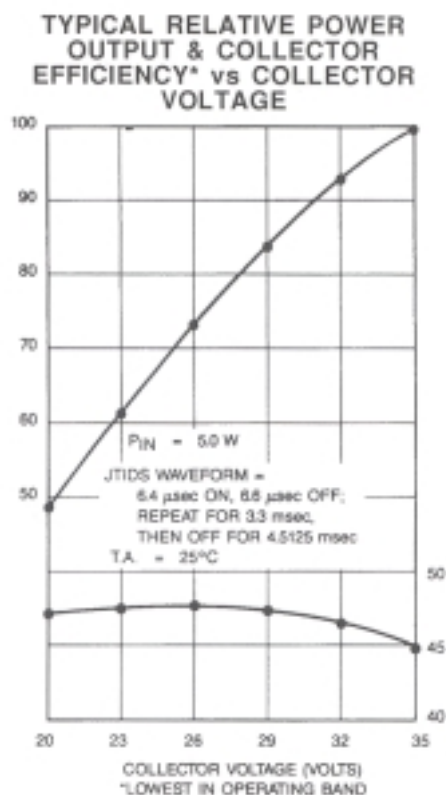
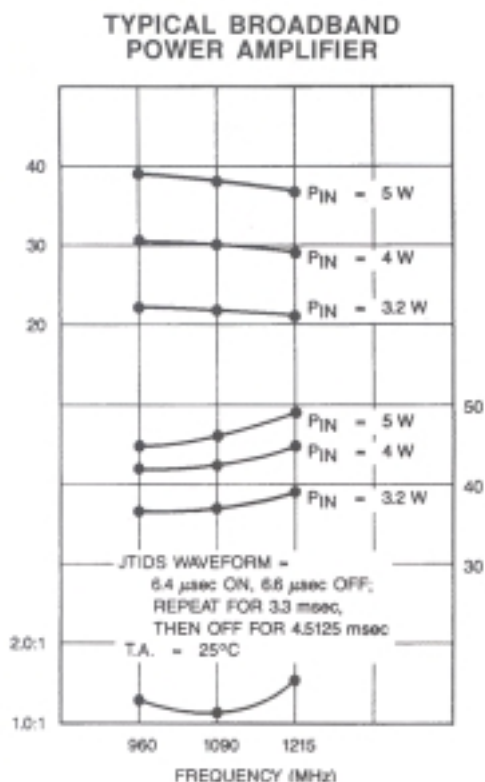
DIM	MINIMUM inches / mm	MAXIMUM inches / mm
A	.140 / 3.56	
B	.110 / 2.80	
C	.110 / 2.80	
D	.395 / 10.03	.407 / 10.34
E	.193 / 4.90	
F		.230 / 5.84
G	.003 / 0.08	.006 / 0.15
H	.118 / 3.00	.131 / 3.33
I	.063 / 1.60	
J	.650 / 16.51	
K	.386 / 9.80	
L	.900 / 22.86	
M	.450 / 11.43	
N	.125 / 3.18	
O	.050 / 1.27	
P	.405 / 10.29	
Q	.170 / 4.32	
R	.062 / 1.58	

ORDER CODE: ASI10546

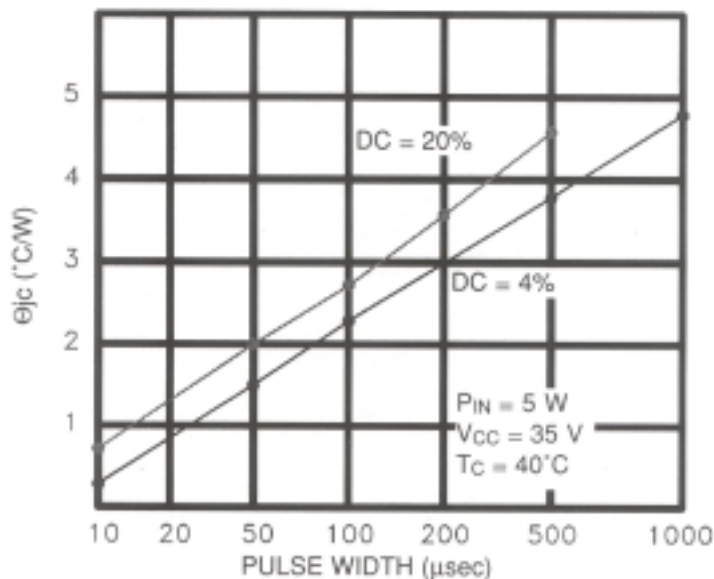
CHARACTERISTICS $T_C = 25^\circ\text{C}$

SYMBOL	TEST CONDITIONS	MINIMUM	TYPICAL	MAXIMUM	UNITS
BV_{CBO}	$I_C = 10$ mA	55			V
BV_{CER}	$I_C = 20$ mA $R_{BE} = 10 \Omega$	55			V
BV_{EBO}	$I_E = 1.0$ mA	3.5			V
I_{CES}	$V_{CE} = 35$ V			5.0	mA
h_{FE}	$V_{CE} = 5.0$ V $I_C = 1.0$ A	15		150	---
P_G	$V_{CC} = 35$ V $P_{OUT} = 30$ W $f = 960 - 1215$ MHz	7.8	8.6		dB
η_C	$P_{IN} = 5.0$ W	40	45		%

TYPICAL PERFORMANCE



MAXIMUM THERMAL RESISTANCE vs PULSE WIDTH & DUTY CYCLE



TEST CIRCUIT

