

NPN SILICON RF POWER TRANSISTOR

DESCRIPTION:

The **ASI BLV33** is a Common Emitter Device Designed for Class A Television Applications.

FEATURES INCLUDE:

- Gold Metalization
- Emitter Ballasting

MAXIMUM RATINGS

I_C	12.5 A
V_{CESM}	65 V
V_{CEO}	33 V
P_{DISS}	132 W @ $T_C = 25^\circ C$
T_J	$-65^\circ C$ to $+200^\circ C$
T_{STG}	$-65^\circ C$ to $+150^\circ C$
θ_{JC}	1.5 $^\circ C/W$

PACKAGE STYLE .500 4L STUD

The technical drawing shows two views of the .500 4L STUD package. The top view is a circular cross-section with four leads labeled 1, 2, 3, and 4. Lead 1 is the collector, leads 2 and 4 are the emitter, and lead 3 is the base. A 45-degree angle is indicated for lead 1. Dimensions A, B, C, D, E, F, G, H, I, and J are labeled. The side view shows the package height and the mounting stud. A note indicates the mounting stud is #10-32 UNF.

1 = COLLECTOR 2 & 4 = EMITTER
3 = BASE

	MINIMUM Inches/mm	MAXIMUM Inches/mm
A	1.010/25,65	1.050/26,67
B	.220/5,59	.230/5,84
C	.495/12,57	.505/12,83
D	.003/0,08	.007/0,18
E	.160/4,06	.180/4,57
F	.622/15,80	
G	.100/2,54	.130/3,31
H	.415/10,54	.425/10,80
I	.720/18,29	
J	.250/6,35	.290/7,37

ORDER CODE: ASI10498

CHARACTERISTICS $T_C = 25^\circ C$

SYMBOL	TEST CONDITIONS			MINIMUM	TYPICAL	MAXIMUM	UNITS
BV_{CEO}	$I_C = 100$ mA			33			V
BV_{CES}	$I_C = 25$ mA			65			V
BV_{EBO}	$I_E = 10$ mA			4.0			V
I_{CES}	$V_{CE} = 30$ V					10	mA
h_{FE}	$V_{CE} = 25$ V	$I_C = 3.0$ A		15		100	---
C_c	$V_{CB} = 25$ V	$f = 1.0$ MHz			155		pF
C_{re}	$V_{CE} = 25$ V	$I_C = 100$ mA	$f = 1.0$ MHz		88		
C_{cs}	$V_{CE} = 25$ V	$I_C = 100$ mA	$f = 1.0$ MHz		3.0		
f_T	$V_{CB} = 25$ V	$I_E = 3.0$ A			680		MHz
	$V_{CB} = 25$ V	$I_E = 6.0$ A			750		
G_p	$V_{CE} = 25$ V	$I_C = 3.2$ A	$P_{out} = 19$ W	9.0	9.7		---
	$f = 224.25$ MHz						

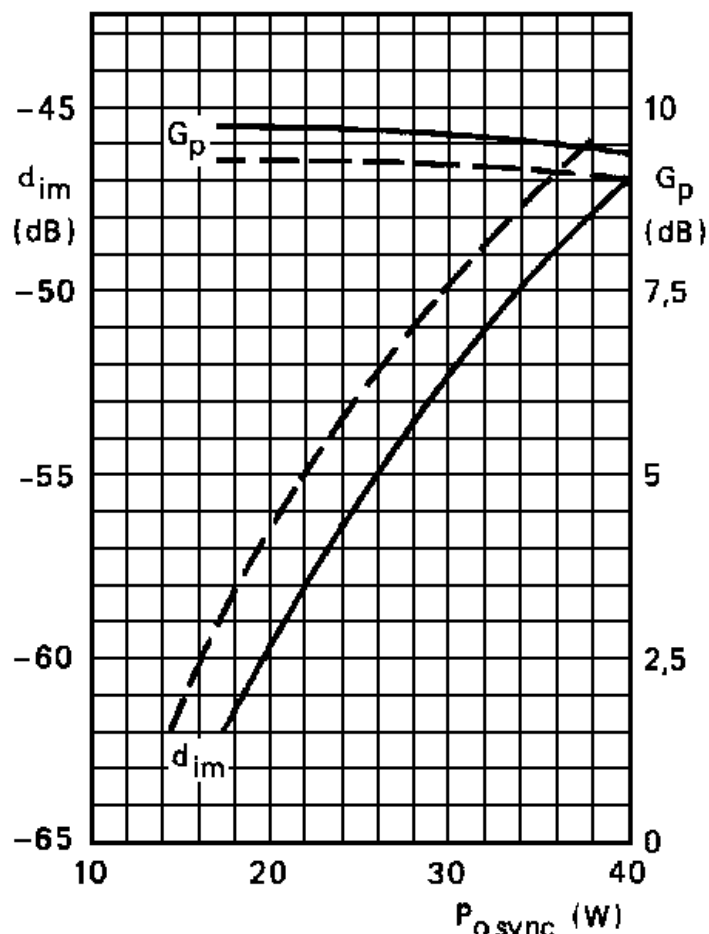


Fig. 1 Intermodulation distortion (d_{im}) and power gain as a function of output power.

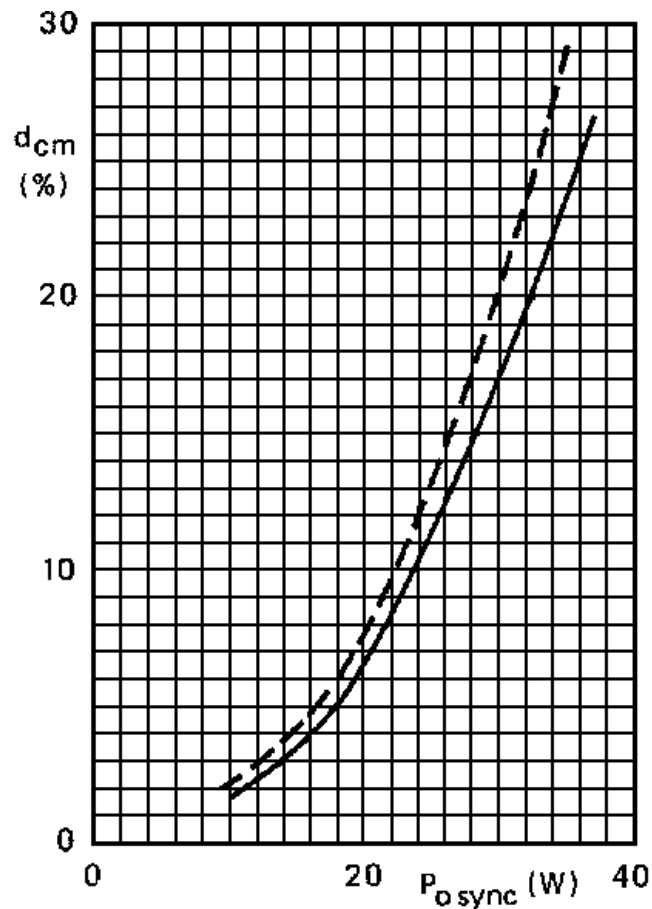


Fig. 2 Cross-modulation distortion (d_{cm}) as a function of output power.

Conditions for fig. 1 and 2:

Typical values; $V_{CE} = 25$ V; $I_C = 3.2$ A; $T_h = 25^\circ\text{C} - T_h = 70^\circ\text{C}$; $f_{vision} = 224.25$ MHz.

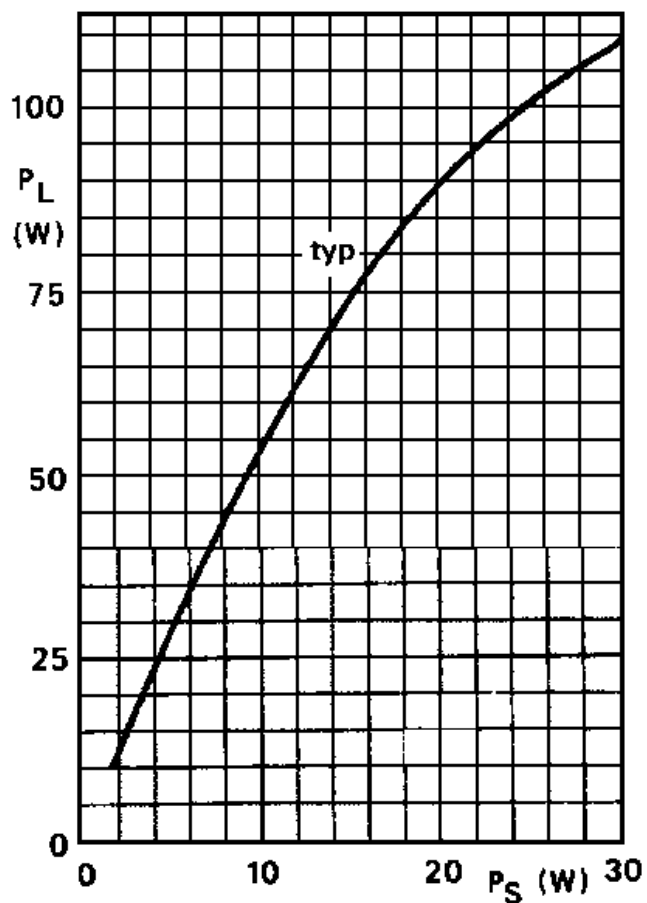


Fig. 3 $V_{CE} = 28$ V; $I_{C(ZS)} = 100$ mA; $T_h = 70$ °C;
 $f_{\text{vision}} = 224.25$ MHz.

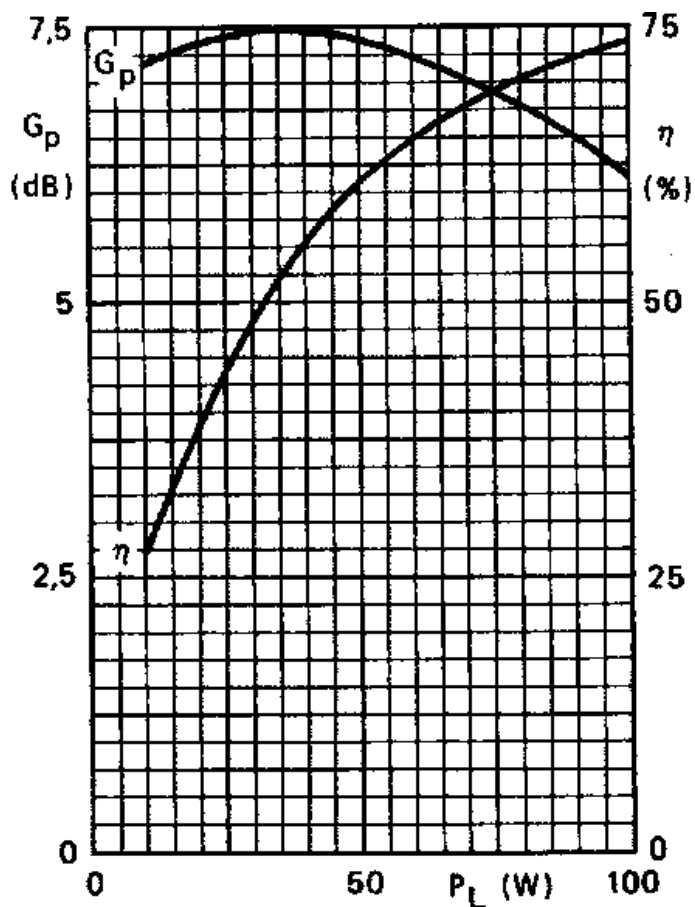


Fig. 4 $V_{CE} = 28$ V; $I_{C(ZS)} = 100$ mA; $T_h = 70$ °C;
 $f_{\text{vision}} = 224.25$ MHz; typical values.

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