

NPN SILICON RF POWER TRANSISTOR

DESCRIPTION:

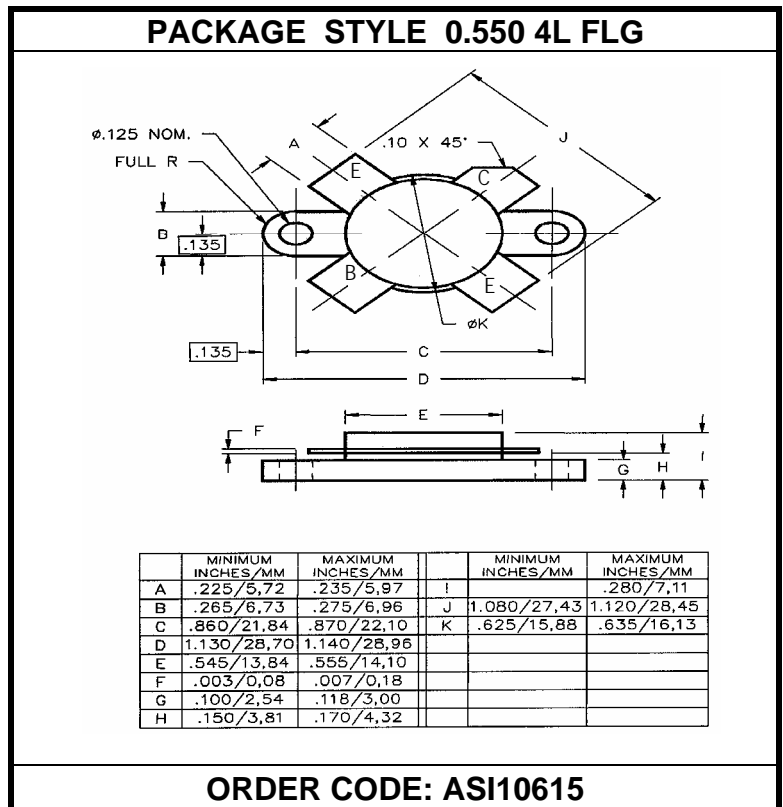
The **ASI HF250-50** is a 50 V epitaxial silicon NPN transistor, designed for SSB communications.

FEATURES:

- $P_G = 14$ dB min. at 250 W/30 MHz
- $IMD_3 = 150$ dBc max. at 250 W(PEP)
- **Omnigold™** Metalization System

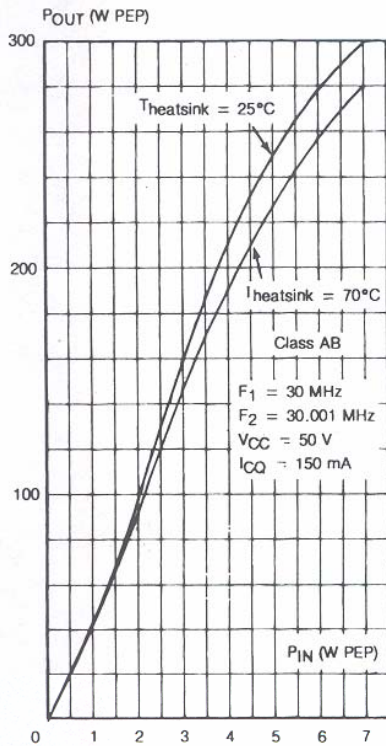
MAXIMUM RATINGS

I_C	40 A
V_{CB0}	110 V
V_{CEO}	55 V
V_{EBO}	4.0 V
P_{DISS}	140 W @ $T_C = 25^\circ C$
T_J	-65 °C to +200 °C
T_{STG}	-65 °C to +150 °C
θ_{JC}	0.40 °C/W

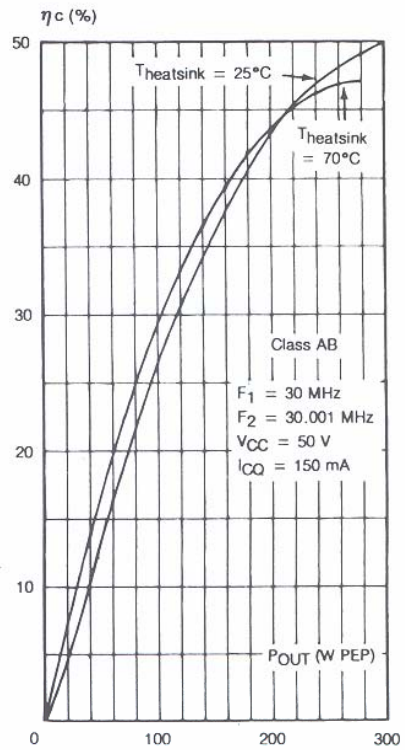

CHARACTERISTICS $T_C = 25^\circ C$

SYMBOL	TEST CONDITIONS	MINIMUM	TYPICAL	MAXIMUM	UNITS
BV_{CEO}	$I_C = 200$ mA	55			V
BV_{CES}	$I_C = 200$ mA	110			V
BV_{EBO}	$I_E = 20$ mA	4.0			V
I_{CEO}	$V_{CE} = 30$ V			10	mA
I_{CES}	$V_{CE} = 60$ V			10	mA
h_{FE}	$V_{CE} = 6.0$ V $I_C = 10$ A	15		45	---
C_{ob}	$V_{CB} = 50$ V $f = 1.0$ MHz			360	pF
G_p		14.5			dB
IMD_3	$V_{CE} = 50$ V $I_{CQ} = 150$ mA $P_{OUT} = 250$ W(PEP)			-30	dBc
η_c		37			%

POWER OUTPUT PEP vs POWER INPUT



COLLECTOR EFFICIENCY vs POWER OUTPUT PEP



INTERMODULATION DISTORTION vs POWER OUTPUT PEP

