

NPN SILICON RF POWER TRANSISTOR

DESCRIPTION:

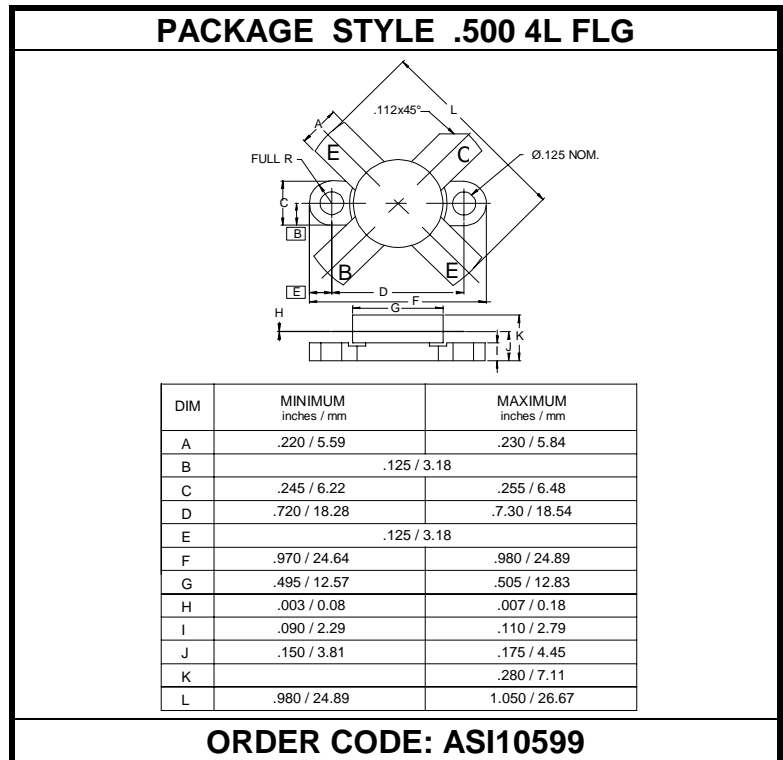
The **ASI HF100-12** is a 12.5 V Class-C epitaxial planar transistor designed primarily for HF communications. This device utilizes state of the art diffused Emitter Ballasting to achieve extreme ruggedness under severe operating conditions.

FEATURES:

- $P_G = 13$ Typ. min. at 100 W/30 MHz
- $IMD_3 = -30$ dBc max. at 100 W_(PEP)
- **Omnigold™** Metalization System

MAXIMUM RATINGS

I_C	20 A
V_{CBO}	36 V
V_{CEO}	18 V
V_{EBO}	4.0 V
P_{DISS}	290 W @ $T_C = 25$ °C
T_J	-65 °C to +200 °C
T_{STG}	-65 °C to +150 °C
θ_{JC}	0.6 °C/W


CHARACTERISTICS $T_C = 25$ °C

SYMBOL	TEST CONDITIONS	MINIMUM	TYPICAL	MAXIMUM	UNITS
BV_{CBO}	$I_C = 100$ mA	36			V
BV_{CES}	$I_C = 100$ mA	36			V
BV_{CEO}	$I_C = 100$ mA	18			V
BV_{EBO}	$I_E = 10$ mA	4.0			V
I_{CES}	$V_{CE} = 15$ V			20	mA
h_{FE}	$V_{CE} = 5.0$ V $I_C = 5.0$ A	10		200	---
C_{OB}	$V_{CB} = 12.5$ V $f = 1.0$ MHz		400		pF



G_P	V _{CE} = 12.5 V	I _{CQ} = 150 mA	f = 30 MHz	11	13		dB
IMD₃	V _{CE} = 12.5 V	I _{CQ} = 150 mA	P _{OUT} = 100 W			-30	dBc