

# NPN SILICON RF POWER TRANSISTOR

**DESCRIPTION:**

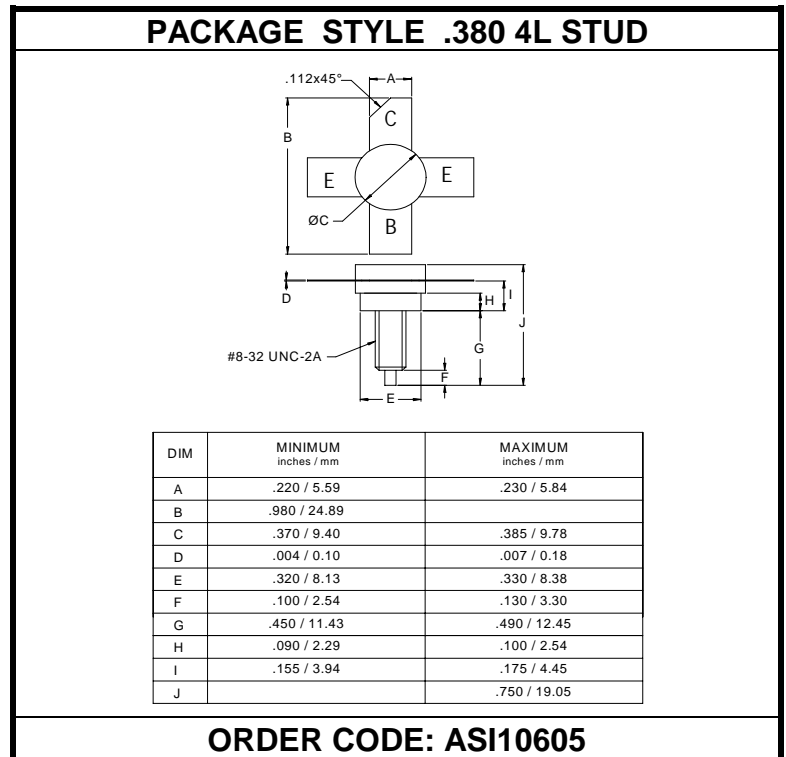
The **ASI HF30-28S** is a 28 V epitaxial RF NPN planar transistor designed primarily for SSB communications. The device utilizes emitter ballasting for improved ruggedness and reliability.

**FEATURES:**

- $P_G = 20$  dB min. at 30 W/30 MHz
- $IMD_3 = -30$  dBc max. at 30 W(PEP)
- **Omnigold™** Metalization System

**MAXIMUM RATINGS**

$I_C$	5.0 A
$V_{CB}$	65 V
$V_{CE}$	35 V
$V_{EBO}$	4.0 V
$P_{DISS}$	60 W @ $T_C = 25$ °C
$T_J$	-65 °C to +200 °C
$T_{STG}$	-65 °C to +150 °C
$\theta_{JC}$	2.9 °C/W


**CHARACTERISTICS**  $T_C = 25$  °C

SYMBOL	TEST CONDITIONS	MINIMUM	TYPICAL	MAXIMUM	UNITS
$BV_{CBO}$	$I_C = 10$ mA	65		---	V
$BV_{CES}$	$I_C = 200$ mA	65		---	V
$BV_{CEO}$	$I_C = 200$ mA	35		---	V
$BV_{EBO}$	$I_E = 10$ mA	4.0		---	V
$I_{CES}$	$V_{CE} = 30$ V	---		10	mA
$I_{CBO}$	$V_{CE} = 30$ V	---		100	mA
$h_{FE}$	$V_{CE} = 5.0$ V $I_C = 500$ mA	5.0		200	---
$C_{OB}$	$V_{CB} = 30$ V $f = 1.0$ MHz	---		65	pF



<b>G<sub>P</sub></b> <b>η<sub>c</sub></b> <b>IMD<sub>3</sub></b>	V <sub>CE</sub> = 28 V P <sub>OUT</sub> = 30 W(PEP)	P <sub>IN</sub> = 0.48 W	f = 30 MHz	718 60		-28	<b>dB</b> <b>%</b> <b>dBc</b>
--	--	--------------------------	------------	-----------	--	-----	-------------------------------------