

# NPN SILICON RF POWER TRANSISTOR

**DESCRIPTION:**

The **ASI VHB40-28S** is an epitaxial plana transistor, designed for 28 V, FM, Calss C RF amplifiers utilized in base stations.

**FEATURES:**

- Common Emitter
- $P_G = 7.0$  dB at 40 W/175 MHz
- **Omnigold™** Metalization System
- Emitter Ballast resistors

**MAXIMUM RATINGS**

$I_C$	5.0 A
$V_{CBO}$	65 V
$V_{CEO}$	35 V
$V_{EBO}$	4.0 V
$P_{DISS}$	60 W
$T_J$	-65 °C to +200 °C
$T_{STG}$	-65 °C to +150 °C
$\theta_{JC}$	2.9 °C/W

**PACKAGE STYLE .380 4L STUD**

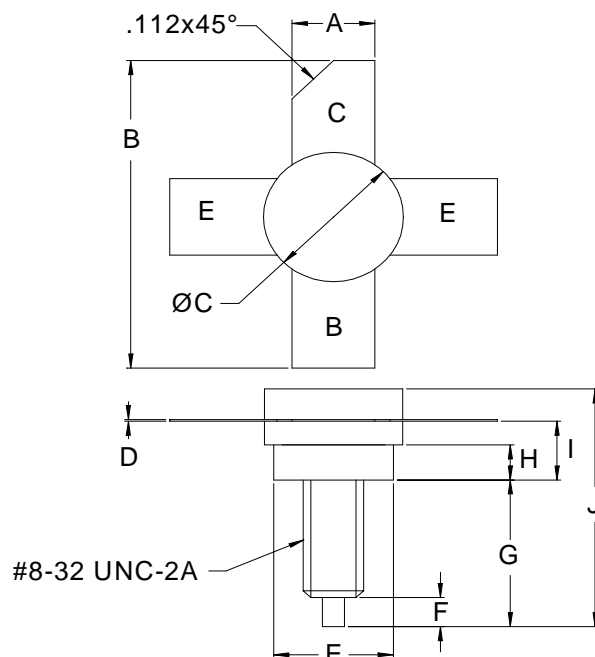
DIM	MINIMUM inches / mm	MAXIMUM inches / mm
A	.220 / 5.59	.230 / 5.84
B	.980 / 24.89	
C	.370 / 9.40	.385 / 9.78
D	.004 / 0.10	.007 / 0.18
E	.320 / 8.13	.330 / 8.38
F	.100 / 2.54	.130 / 3.30
G	.450 / 11.43	.490 / 12.45
H	.090 / 2.29	.100 / 2.54
I	.155 / 3.94	.175 / 4.45
J		.750 / 19.05

**ORDER CODE: ASI10727**

**CHARACTERISTICS**  $T_C = 25$  °C

SYMBOL	TEST CONDITIONS	MINIMUM	TYPICAL	MAXIMUM	UNITS
$BV_{CEO}$	$I_C = 200$ mA	35			V
$BV_{CES}$	$I_C = 200$ mA	65			V
$BV_{CBO}$	$I_C = 10$ mA	65			V
$BV_{EBO}$	$I_E = 10$ mA	4.0			V
$I_{CES}$	$V_{CE} = 30$ V			10	mA
$I_{CBO}$	$V_{CB} = 30$ V			1.0	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

$P_G$	$V_{CE} = 28\text{ V}$	$P_{IN} = 7.0\text{ W}$	$f = 175\text{ MHz}$	7.6			<b>dB</b>
$\eta_c$				40	60		<b>%</b>
$P_{OUT}$							<b>W</b>



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