

# NPN SILICON RF POWER TRANSISTOR

## DESCRIPTION:

The **B12-28** is Designed for Class C Power Amplifier Applications up to 250 MHz.

## FEATURES:

- $P_G = 13$  dB Typical at 12 W/175 MHz
- $\infty$  Load VSWR at Rated Conditions
- **Omnigold™** Metallization System

## MAXIMUM RATINGS

$I_C$	3.0 A
$V_{CB}$	60 V
$P_{DISS}$	27 W @ $T_C = 25^\circ\text{C}$
$T_J$	$-55^\circ\text{C}$ to $+200^\circ\text{C}$
$T_{STG}$	$-55^\circ\text{C}$ to $+150^\circ\text{C}$
$\theta_{JC}$	6.5 $^\circ\text{C/W}$

**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: ASI10801**

## CHARACTERISTICS $T_C = 25^\circ\text{C}$

SYMBOL	TEST CONDITIONS	MINIMUM	TYPICAL	MAXIM	UNITS
$BV_{CBO}$	$I_C = 200$ mA	60			V
$BV_{CEO}$	$I_C = 200$ mA	35			V
$BV_{EBO}$	$I_E = 10$ mA	4.0			V
$I_{CBO}$	$V_{CB} = 30$ V			250	$\mu\text{A}$
$h_{FE}$	$V_{CE} = 5.0$ V $I_C = 500$ mA	20		200	---
$C_{ob}$	$V_{CB} = 30$ V $f = 1.0$ MHz			30	pF
$P_G$	$V_{CC} = 28$ V $P_{OUT} = 12$ W $f = 175$ MHz	10.8	13		dB
$\eta_c$		50	60		%