

NPN SILICON RF POWER TRANSISTOR



Island Labs

DESCRIPTION:

The **C1-12** is Designed for 12.5 Volt supply. Applications from 450 to 512 MHz.

FEATURES:

- $P_G = 11$ dB Typ. at 1.1 W/470 MHz
- $\eta_c = 65$ % Typ. at 1.1 W/470 MHz
- **Omnigold™** Metalization System

MAXIMUM RATINGS

I_C	250 mA
V_{CBO}	36 V
V_{CEO}	28 V
V_{EBO}	4.0 V
P_{DISS}	5.0 W @ $T_C = 25$ °C
T_J	-65 °C to +200 °C
T_{STG}	-65 °C to +150 °C
θ_{JC}	35 °C/ W

PACKAGE STYLE .280 4L PILL

DIM	MINIMUM inches / mm	MAXIMUM inches / mm
A	.220 / 5.59	.230 / 5.84
B		1.055 / 26.80
C	.275 / 6.99	.285 / 7.24
D	.004 / 0.10	.006 / 0.15
E	.050 / 1.27	.060 / 1.52
F	.118 / 3.00	.130 / 3.30

ORDER CODE: ASI

CHARACTERISTICS $T_C = 25$ °C

SYMBOL	TEST CONDITIONS	MINIMUM	TYPICAL	MAXIMUM	UNITS
BV_{CBO}	$I_C = 5.0$ mA	14.5			V
BV_{CES}	$I_C = 5.0$ mA	37			V
BV_{EBO}	$I_E = 5.0$ mA	4.0			V
h_{FE}	$V_{CE} = 6.0$ V $I_C = 100$ mA	10		100	---
C_{OB}	$V_{CB} = 12$ V $f = 1.0$ MHz		3.0		pF
P_G η_c	$V_{CE} = 12.5$ V $P_{OUT} = 1.1$ W $f = 470$ MHz $P_{in} = 0.1$ W		11 65		dB %