



MSC1020

NPN SILICON RF POWER TRANSISTOR

DESCRIPTION:

The **ASI MSC1020** is Designed for General Purpose Class C Power Amplifier Applications up to 1.2 GHz.

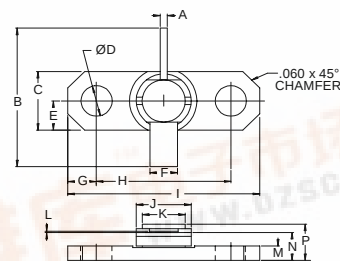
FEATURES:

- $P_G = 10$ dB min. at 20 W/ 1.0 GHz
- Hermetic Microstrip Package
- **Omnigold™** Metalization System
- Emitter Ballasted

MAXIMUM RATINGS

I_C	1.5 A
V_{CC}	35 V
P_{DISS}	35 W @ $T_C = 25^\circ\text{C}$
T_J	-65°C to $+200^\circ\text{C}$
T_{STG}	-65°C to $+200^\circ\text{C}$
θ_{JC}	5.0 $^\circ\text{C/W}$

PACKAGE STYLE .250 2L FLG



DIM	MINIMUM inches / mm	MAXIMUM inches / mm
A	.028 / 0.71	.032 / 0.81
B	.740 / 18.80	
C	.245 / 6.22	.255 / 6.48
D	.128 / 3.25	.132 / 3.35
E		.125 / 3.18
F	.110 / 2.79	.117 / 2.97
G		.117 / 2.97
H	.560 / 14.22	.570 / 14.48
I	.790 / 20.07	.810 / 20.57
J	.225 / 5.72	.235 / 5.97
K	.165 / 4.19	.185 / 4.70
L	.003 / 0.08	.007 / 0.18
M	.058 / 1.47	.068 / 1.73
N	.119 / 3.02	.135 / 3.43
P	.149 / 3.78	.187 / 4.75

COMMON BASE

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

SYMBOL	TEST CONDITIONS	MINIMUM	TYPICAL	MAXIMUM	UNITS
BV_{CBO}	$I_C = 5.0$ mA	45			V
BV_{CER}	$I_C = 15$ mA $R_{BE} = 10 \Omega$	45			V
BV_{EBO}	$I_E = 1.0$ mA	3.5			V
I_{CBO}	$V_{CB} = 28$ V			5.0	mA
h_{FE}	$V_{CE} = 5.0$ V $I_C = 1.0$ A	15		120	---
C_{ob}	$V_{CB} = 28$ V $f = 1.0$ MHz			19	pF
P_G	$V_{CC} = 28$ V $P_{OUT} = 20$ W $f = 1.0$ GHz	10	10.2		dB
η_c	$V_{CC} = 28$ V $P_{IN} = 2.0$ W	55	58		%