

# NPN SILICON RF POWER TRANSISTOR

**DESCRIPTION:**

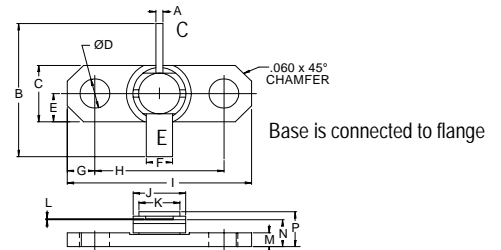
The **MSC3005** is Designed for Class "C" Amplifier Applications up to 3 GHz.

**FEATURES:**

- $P_{OUT} = 5.0 \text{ W}$  Typ. at 3 GHz
- **Common Base** Configuration
- **Omnigold™** Metallization System

**MAXIMUM RATINGS**

$I_C$	700 mA
$V_{CB}$	30 V
$P_{DISS}$	17 W @ $T_C = 25^\circ\text{C}$
$T_J$	$-65^\circ\text{C}$ to $+200^\circ\text{C}$
$T_{STG}$	$-65^\circ\text{C}$ to $+200^\circ\text{C}$
$\theta_{JC}$	$8.5^\circ\text{C/W}$

**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

**ASI ORDER CODE: ASI30304**
**CHARACTERISTICS**  $T_C = 25^\circ\text{C}$ 

SYMBOL	TEST CONDITIONS	MINIMUM	TYPICAL	MAXIMUM	UNITS
$BV_{CER}$	$I_C = 5.0 \text{ mA}$ $R_{BE} = 10\Omega$	45			V
$BV_{CBO}$	$I_C = 1.0 \text{ mA}$	45			V
$BV_{EBO}$	$I_E = 1.0 \text{ mA}$	3.5			V
$I_{CBO}$	$V_{CB} = 28 \text{ V}$			0.5	mA
$h_{FE}$	$V_{CE} = 5.0 \text{ V}$ $I_C = 500 \text{ mA}$	20		120	---
$C_{OB}$	$V_{CB} = 28 \text{ V}$ $f = 1.0 \text{ MHz}$			7.5	pF
$P_G$	$V_{CC} = 28 \text{ V}$ $P_{OUT} = 4.5 \text{ W}$ $f = 3.0 \text{ GHz}$	4.5	5.0		dB
$\eta_c$		30	35		%