NPN SILICON RF POWER TRANSISTOR

DESCRIPTION:

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

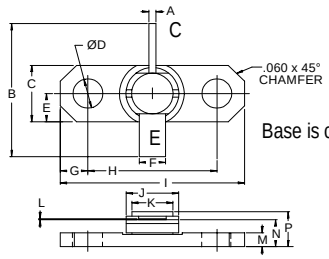
FEATURES:

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

MAXIMUM RATINGS

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

PACKAGE STYLE .250 2L FLG



Base is connected to flange

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 ^{O}C

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