

NPN SILICON RF POWER TRANSISTOR

DESCRIPTION:

The **MSC72166** is Designed for High Power Pulsed IFF Avionics Applications.

MAXIMUM RATINGS

I_C	40 A
V_{CC}	50 V
P_{DISS}	1350 W @ $T_C = 25^\circ\text{C}$
T_J	-65°C to $+200^\circ\text{C}$
T_{STG}	-65°C to $+150^\circ\text{C}$
θ_{JC}	0.06°C/W

PACKAGE STYLE .400X.500 COMMON BASE		
	MINIMUM Inches/mm	MAXIMUM Inches/mm
A	.145/.368	.155/.393
B	.750/.19.05	
C	.380/.9.65	.390/.9.91
D	.130/.3.30	
E	.495/.12.57	.507/.12.88
F	.640/.16.26	.655/.16.64
G	.890/.22.61	.910/.23.11
H	.002/.0.05	.006/.0.15
I	.055/.1.40	.065/.1.65
J	.115/.2.92	.135/.3.43
K		.230/.5.84
L	.395/.10.03	.407/.10.34

1 = COLLECTOR 2 & 4 = BASE
3 = EMITTER

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

SYMBOL	TEST CONDITIONS	MINIMUM	TYPICAL	MAXIMUM	UNITS
BV_{CES}	$I_C = 150\text{ mA}$	40			V
BV_{CBO}	$I_C = 25\text{ mA}$	65			V
I_{CES}	$V_{CE} = 50\text{ V}$			35	mA
I_{EBO}	$V_{EB} = 3.5\text{ V}$			10	mA
h_{FE}	$V_{CE} = 5.0\text{ V}$ $I_C = 1.0\text{ A}$	5.0		200	---
P_{out} G_P	$V_{CC} = 50\text{ V}$ $P_{in} = 130\text{ W}$ $f = 1030\text{ MHz}$	630 6.5			W dB