

New Jersey Semi-Conductor Products, Inc.

20 STERN AVE.
SPRINGFIELD, NEW JERSEY 07081
U.S.A.

TELEPHONE: (973) 376-2922
(212) 227-6005
FAX: (973) 376-8960

MS2203

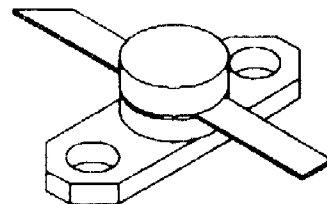
RF & MICROWAVE TRANSISTORS AVIONICS APPLICATIONS

Features

- 1090 MHz
- 18 VOLTS
- $P_{OUT} = 0.6$ WATTS
- $G_P = 10.8$ dB MINIMUM
- CLASS A OPERATION
- INFINITE VSWR CAPABILITY @ RATED CONDITIONS
- COMMON EMITTER CONFIGURATION

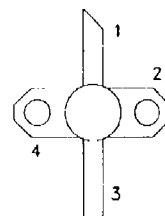
DESCRIPTION:

The MS2203 is a common emitter, silicon NPN, microwave transistor designed for Class A driver applications under DME or IFF pulse conditions. This device is capable of withstanding an infinite load VSWR at any phase angle under rated conditions.



**.280 2LFL M220
epoxy sealed**

PIN CONNECTION



1. Collector 3. Base
2. Emitter 4. Emitter

ABSOLUTE MAXIMUM RATINGS ($T_{case} = 25^{\circ}C$)

Symbol	Parameter	Value	Unit
V_{CE}	Collector-Emitter	20	V
I_C	Collector Current	300	mA
P_D	Total Device Dissipation	5	W
T_J	Junction Temperature	200	$^{\circ}C$
T_{stg}	Storage Temperature Range	-65 + 150	$^{\circ}C$

Thermal Data

$R_{TH(J-C)}$	Thermal Resistance Junction-case	35	$^{\circ}C/W$
---------------	----------------------------------	----	---------------

NJ Semi-Conductors reserves the right to change test conditions, parameter limits and package dimensions without notice. Information furnished by NJ Semi-Conductors is believed to be both accurate and reliable at the time of going to press. However, NJ Semi-Conductors assumes no responsibility for any errors or omissions discovered in its use. NJ Semi-Conductors encourages customers to verify that datasheets are current before placing orders.

Quality Semi-Conductors

MS2203**ELECTRICAL SPECIFICATIONS (Tcase = 25°C)****STATIC**

Symbol	Test Conditions	Value			Unit
		Min.	Typ.	Max.	
BV_{CEO}	$I_C = 5.0 \text{ mA}$ $I_B = 0 \text{ mA}$	20	---	---	V
BV_{CBO}	$I_C = 1.0 \text{ mA}$ $I_E = 0 \text{ mA}$	50	---	---	V
BV_{EBO}	$I_E = 1.0 \text{ mA}$ $I_C = 0 \text{ mA}$	3.5	---	---	V
I_{CES}	$V_{CE} = 28 \text{ V}$	---	---	1.0	mA
h_{FE}	$V_{CE} = 5.0 \text{ V}$ $I_C = 100 \text{ mA}$	15	---	120	---

DYNAMIC

Symbol	Test Conditions	Value			Unit
		Min.	Typ.	Max.	
P_{OUT}	$f = 1025 - 1150 \text{ MHz}$ $P_{IN} = 50\text{mW}$	0.6	0.85	---	W
G_{PE}	$f = 1025 - 1150 \text{ MHz}$ $P_{IN} = 50 \text{ mW}$	10.8	12.3	---	dB

Conditions: $V_{CE} = 18\text{V}$
 $I_{CQ} = 120 \text{ mA}$