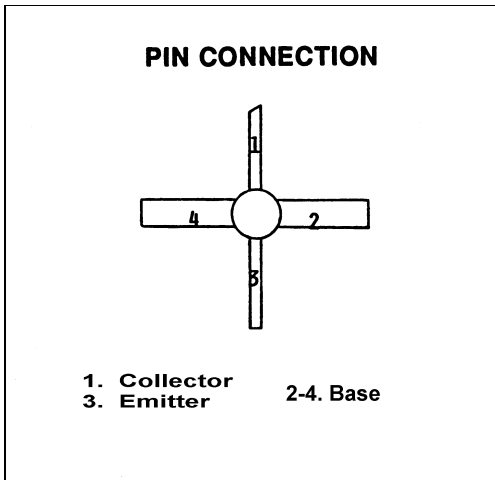
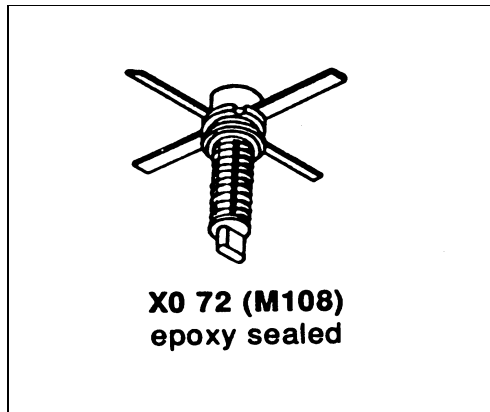


**MS3421**

**RF & MICROWAVE TRANSISTORS  
 S BAND GENERAL PURPOSE**

**Features**

- GOLD METALIZATION
- 600 mW POWER OUTPUT
- 2.4 GHz OPERATION
- COMMON BASE CONFIGURATION



**DESCRIPTION:**

THE MS3421 IS IDEALLY SUITED FOR LOW VOLTAGE OPERATION IN THE 2-4 GHz FREQUENCY RANGE WITH POWER LEVELS OF 600 mW TYPICAL AT 3 GHz.

**ABSOLUTE MAXIMUM RATINGS (Tcase = 25°C)**

Symbol	Parameter	Value	Unit
P <sub>DISS</sub>	Power Dissipation*	3.8	W
I <sub>C</sub>	Device Current *	0.15	A
V <sub>CC</sub>	Collector Supply Voltage*	30	V
T <sub>J</sub>	Junction Temperature	200	°C
T <sub>STG</sub>	Storage Temperature	-65 to +150	°C

\*Rated RF Operation

**Thermal Data**

R <sub>TH(J-C)</sub>	Junction - Case Thermal Resistance	45	°C/W
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ELECTRICAL SPECIFICATIONS (Tcase = 25°C)

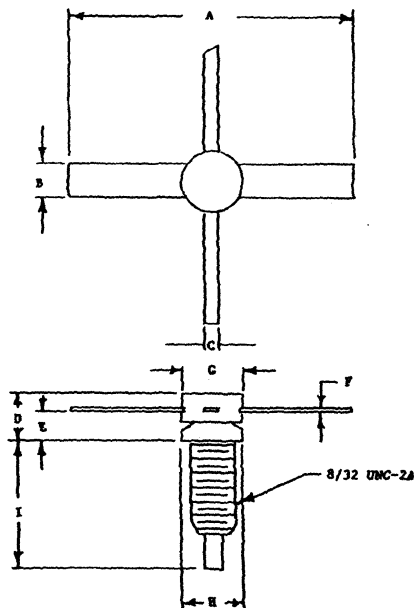
STATIC

Symbol	Test Conditions	Value			Unit
		Min.	Typ.	Max.	
Bvebo	I <sub>E</sub> = 0.05 mA	3	---	---	V
Bvcbo	I <sub>C</sub> = 0.25 mA	40	---	---	V
Bvcer	I <sub>C</sub> = 1 mA    R=100 Ω	35	---	---	V
Icbo	V <sub>CB</sub> = 20 V	---	---	5	μA
HFE	V <sub>CE</sub> = 5.0 V    I <sub>C</sub> =110 mA	15	---	150	B

DYNAMIC

Symbol	Test Conditions	Value			Unit
		Min.	Typ.	Max.	
P <sub>out</sub>	f =3 GHz    P <sub>in</sub> =0.125 W    V <sub>CC</sub> =15V	0.5	0.6	---	W
η <sub>c</sub>	f =3 GHz    P <sub>in</sub> =0.125 W    V <sub>CC</sub> =15V	27	---	---	%

**PACKAGE MECHANICAL DATA**



	Minimum Inches	Maximum Inches
A	.890	
B	.120	.130
C	.027	.033
D		.195
E	.098	.112
F	.003	.007
G	.201	.207
H	.201	.207
I	.425	.465