



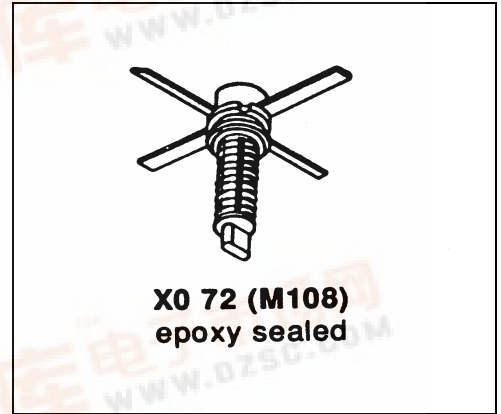
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## MS3421

### RF & MICROWAVE TRANSISTORS S BAND GENERAL PURPOSE

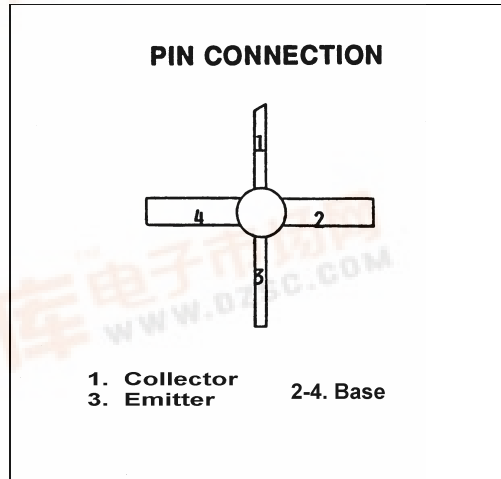
#### Features

- 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 (T<sub>case</sub> = 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)**

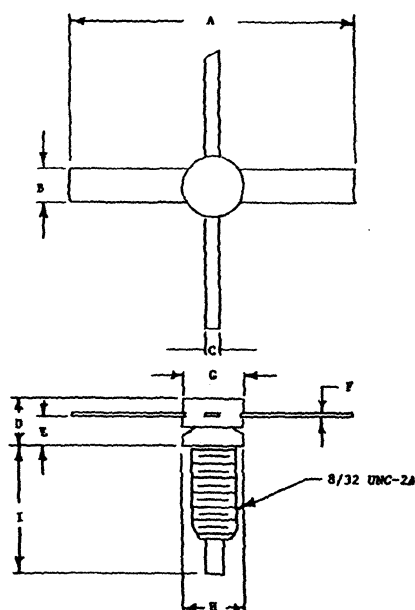
**STATIC**

Symbol	Test Conditions	Value			Unit
		Min.	Typ.	Max.	
Bvebo	$I_E = 0.05 \text{ mA}$	3	---	---	V
Bvcbo	$I_C = 0.25 \text{ mA}$	40	---	---	V
Bvcer	$I_C = 1 \text{ mA}$ $R=100 \Omega$	35	---	---	V
Icbo	$V_{CB} = 20 \text{ V}$	---	---	5	$\mu\text{A}$
HFE	$V_{CE} = 5.0 \text{ V}$ $I_C=110 \text{ mA}$	15	---	150	B

**DYNAMIC**

Symbol	Test Conditions	Value			Unit
		Min.	Typ.	Max.	
$P_{out}$	$f=3 \text{ GHz}$ $P_{in}=0.125 \text{ W}$ $V_{CC}=15\text{V}$	0.5	0.6	---	W
$\eta_c$	$f=3 \text{ GHz}$ $P_{in}=0.125 \text{ W}$ $V_{CC}=15\text{V}$	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