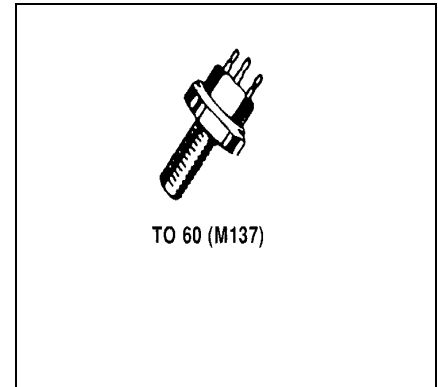


SD1050

RF & MICROWAVE TRANSISTORS VHF-UHF APPLICATIONS

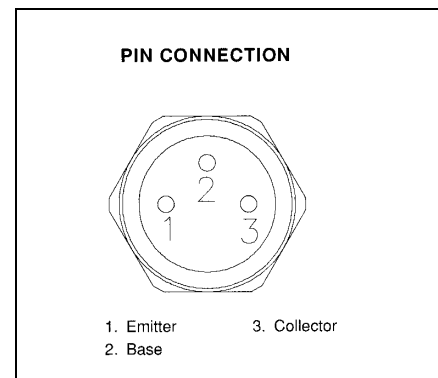
Features

- 130 - 400 MHz
- 28 VOLTS
- $P_{OUT} = 3.0$ WATTS
- $G_P = 4.8$ dB MINIMUM
- HIGH POWER GAIN
- COMMON EMITTER CONFIGURATION



DESCRIPTION:

This line of silicon epitaxial NPN planar high frequency transistor employs a multi emitter electrode design. This feature together with a heavily diffused base matrix located between the individual emitters results in high RF current handling capability, high power gain, low base resistance and low output capacitance. These transistors are intended for Class A, B, or C amplifier, oscillator or frequency multiplier circuits and are specifically designed for operation in the VHF-UHF region.



ABSOLUTE MAXIMUM RATINGS (T_{case} = 25°C)

Symbol	Parameter	Value	Unit
V _{CBO}	Collector-Base Voltage	65	V
V _{CES}	Collector-Emitter Voltage	40	V
V _{EBO}	Emitter-Base Voltage	4.0	V
I _C	Device Current	1.5	A
P _{DISS}	Power Dissipation	11.6	W
T _J	Junction Temperature	+200	°C
T _{STG}	Storage Temperature	-65 to +150	°C

Thermal Data

R _{TH(J-C)}	Junction-case Thermal Resistance	15.0	°C/W
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ELECTRICAL SPECIFICATIONS (T_{case} = 25°C)
STATIC

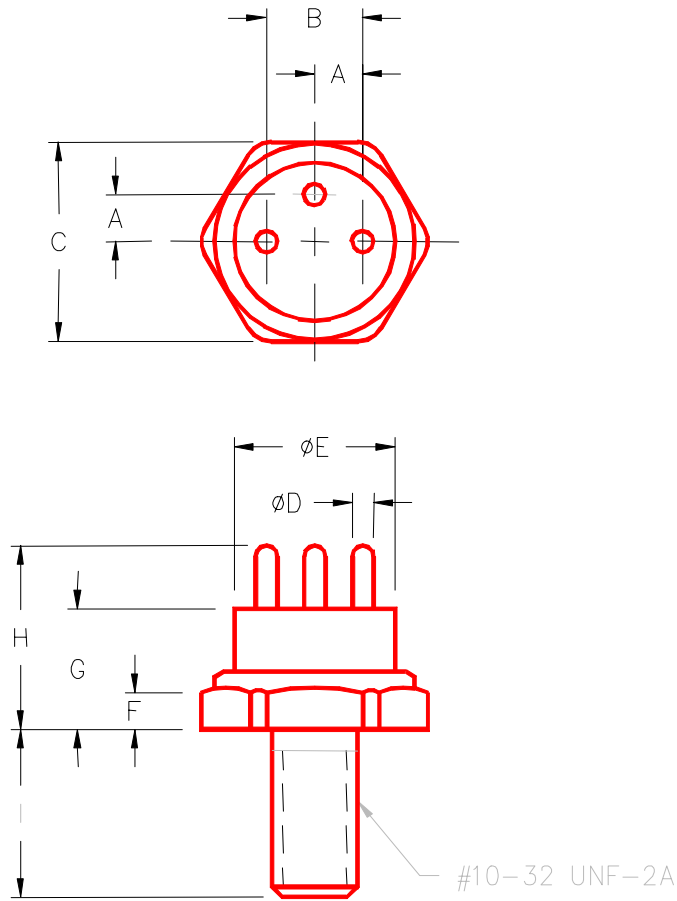
Symbol	Test Conditions	Value			Unit
		Min.	Typ.	Max.	
BV _{CBO}	I _C = 0.5 mA	65	---	---	V
BV _{EBO}	I _E = 0.1 mA	4	---	---	V
BV _{CEO}	I _C = 200 mA	40	---	---	V
I _{CEO}	V _{CE} = 30 V	---	---	0.1	mA
h _{FE}	V _{CE} = 5 V I _C = 250mA	10	---	---	---

DYNAMIC

Symbol	Test Conditions	Value			Unit
		Min.	Typ.	Max.	
P _{OUT}	f = 400 MHz P _{IN} = 1 W V _{CC} = 28 V	3	---	---	W
η _C	f = 400 MHz P _{IN} = 1 W V _{CC} = 28 V	40	---	---	%
G _P	f = 400 MHz P _{IN} = 1 W V _{CC} = 28 V	4.8	---	---	dB
C _{OB}	f = 1 MHz V _{CB} = 30 V	---	---	10	pF

PACKAGE MECHANICAL DATA

PACKAGE STYLE M137



	MINIMUM INCHES/MM	MAXIMUM INCHES/MM		MINIMUM INCHES/MM	MAXIMUM INCHES/MM
A	.090/2,29	.110/2,79	I	.420/10,67	.455/11,56
B	.185/4,70	.215/5,46	I	.140/3,56	.160/4,06
C	.420/10,67	.440/11,18			
D	.030/0,76	.046/1,17			
E	.320/8,13	.360/9,14			
F	.090/2,29	.135/3,43			
G	.215/5,46	.320/8,13			
H		.480/12,19			

STANDARD STUD
SHORT STUD