RF Products
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Progress Powered by Technology

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SD1060

RF & MICROWAVE TRANSISTORS
VHF - UHF APPLICATIONS

TO 60 (M137)

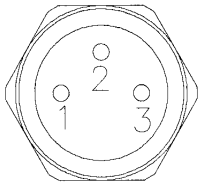
Features

- 400 MHz
- 28 VOLTS
- P_{OUT} = 5.0 WATTS
- G_P = 4.7 dB MINIMUM
- COMMON EMITTER CONFIGURATION

DESCRIPTION:

This 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.

PIN CONNECTION



1. Emitter
2. Base
3. Collector

ABSOLUTE MAXIMUM RATINGS (Tcase = 25°C)

Symbol	Parameter	Value	Unit
V_{CBO}	Collector-Base Voltage	65	V
V_{CEO}	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	15.1	°C/W

ELECTRICAL SPECIFICATIONS (Tcase = 25°C)

STATIC

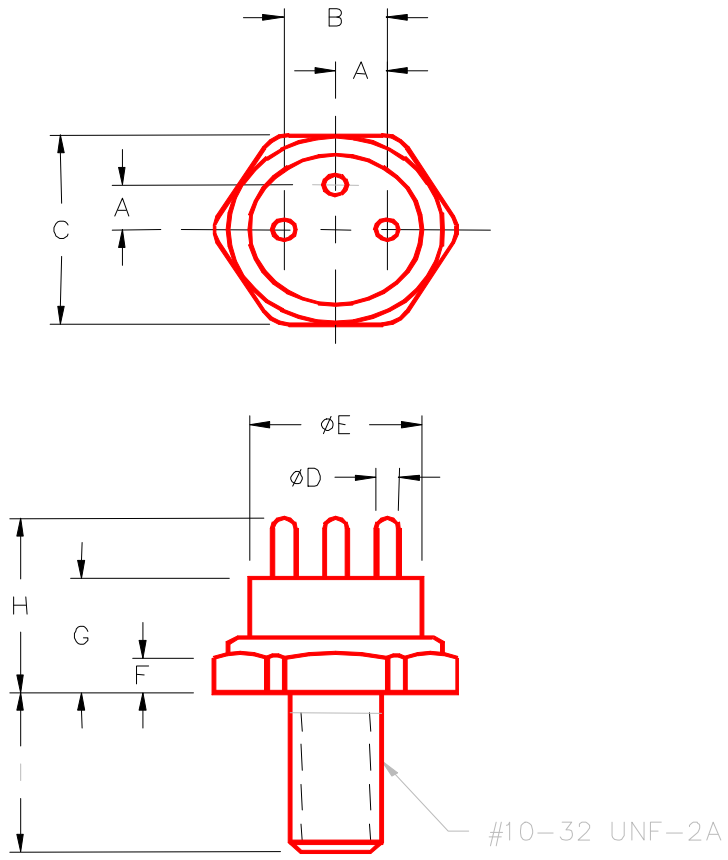
Symbol	Test Conditions	Value			
		Min.	Typ.	Max.	Unit
BV_{CBO}	I_C = 100 μA	65	---	---	V
BV_{EBO}	I_E = 1 mA	4.0	---	---	V
BV_{CEO}	I_C = 200 mA	40	---	---	V
I_{CEO}	V_{CE} = 30 V	---	---	0.1	mA

DYNAMIC

Symbol	Test Conditions			Value			
				Min.	Typ.	Max.	Unit
P_{OUT}	f = 400 MHz	P_{IN} = 1.7 W	V_{CC} = 28 V	5.0	---	---	W
G_P	f = 400 MHz	P_{IN} = 1.7 W	V_{CC} = 28 V	45	---	---	%
IMD	f = 400 MHz	P_{IN} = 1.7 W	V_{CC} = 28 V	4.7	---	---	dB
C_{OB}	f = 1 MHz	V_{CB} = 30 V		---	---	10.0	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	STANDARD STUD
B	.185/4,70	.215/5,46	I	.140/3,56	.160/4,06	SHORT STUD
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				