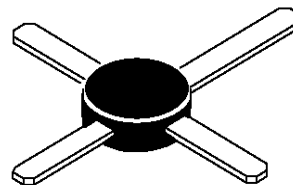


RF & MICROWAVE DISCRETE LOW POWER TRANSISTORS

Features

- Specified @ 12.5V, 870 MHz characteristics
- Output Power = 750 mW
- Minimum Gain = 8.0dB
- Efficiency 60% Typical
- Cost Effective Macro-X package



Macro X

DESCRIPTION: Designed primarily for wideband large signal stages in the 800 MHz and UHF frequency ranges.

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

Symbol	Parameter	Value	Unit
V _{CEO}	Collector-Emitter Voltage	16	V
V _{CBO}	Collector-Base Voltage	30	V
V _{EBO}	Emitter-Base Voltage	3	V
I _C	Collector Current	200	mA
P _D	Total Device Dissipation @ TC = 50°C	2.5	W
T _{STG}	Storage Junction Temperature Range	-65 to +150	°C

Thermal Data

R _{TH(J-C)}	Thermal Resistance Junction-Case	40	°C/W
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ELECTRICAL SPECIFICATIONS (Tcase = 25°C)

STATIC

Symbol	Test Conditions	Value			Unit
		Min.	Typ.	Max.	
BV_{CEO}	$I_C = 5.0 \text{ mA}$, $I_B = 0$	16	-	-	V
BV_{CES}	$I_C = 5.0 \text{ mA}$, $V_{BE} = 0$	30	-	-	V
BV_{EBO}	$I_E = 0.1 \text{ mA}$, $I_C = 0$	3.0	-	-	V
I_{CES}	$V_{CE} = 15 \text{ V}$, $V_{BE} = 0 \text{ V}$	-	-	0.1	mA
HFE	$V_{CE} = 5.0 \text{ V}$, $I_C = 50 \text{ mA}$	30	-	200	-

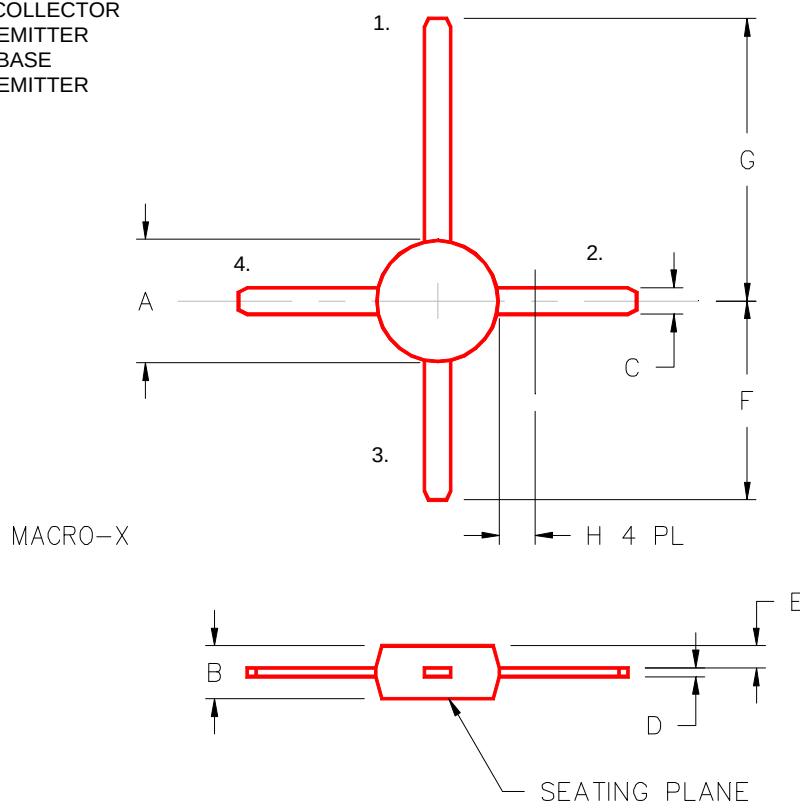
FUNCTIONAL

Symbol	Test Conditions	Value			Unit
		Min.	Typ.	Max.	
G_{PE}	$f = 870 \text{ MHz}$, $P_{OUT} = 0.75 \text{ W}$, $V_{CE} = 12.5 \text{ V}$	8.0	9.5	-	dB
η_c	$f = 870 \text{ MHz}$, $P_{OUT} = 0.75 \text{ W}$, $V_{CE} = 12.5 \text{ V}$	50	60	-	%
C_{OB}	$V_{CB} = 15 \text{ V}$, $f = 1.0 \text{ MHz}$	-	-	2.75	pf

PACKAGE MECHANICAL DATA

PACKAGE STYLE M238

PIN 1. COLLECTOR
 2. EMITTER
 3. BASE
 4. EMITTER



	MINIMUM INCHES/MM	MAXIMUM INCHES/MM		MINIMUM INCHES/MM	MAXIMUM INCHES/MM
A	.175/4,45	.205/5,21			
B	.075/1,91	.100/2,54			
C	.033/0,84	.039/0,99			
D	.008/0,20	.012/0,31			
E	.030/0,76	.045/1,14			
F	.285/7,24	.320/8,13			
G	.415/10,54	.450/11,43			
H	.065/1,65				

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