

# CW Power Transistor, 3.5W 2.3 GHz

PH2323-3

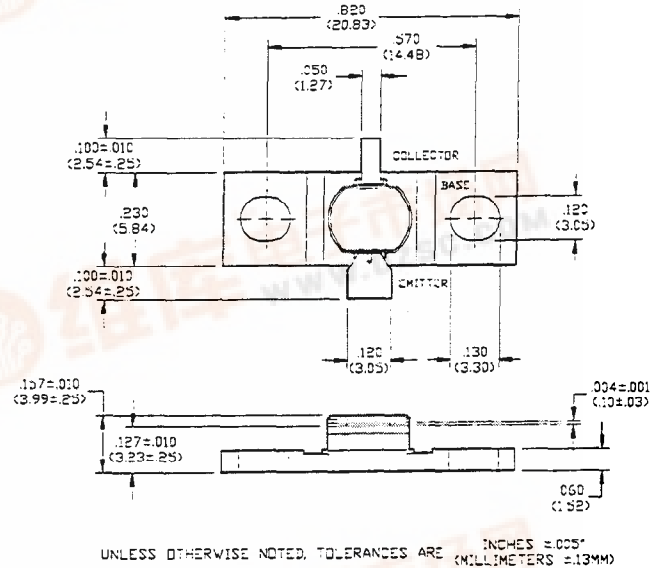
V2.00

## Features

- NPN Silicon Microwave Power Transistor
- Common Base Configuration
- Class C Operation
- Interdigitated Geometry
- Diffused Emitter Ballasting Resistors
- Gold Metalization System
- Hermetic Metal/Ceramic Package

## Absolute Maximum Ratings at 25°C

Parameter	Symbol	Rating	Units
Collector-Emitter Voltage	$V_{CES}$	60	V
Emitter-Base Voltage	$V_{EBO}$	3.0	V
Collector Current	$I_C$	0.4	A
Power Dissipation	$P_D$	11	W
Junction Temperature	$T_J$	200	°C
Storage Temperature	$T_{STG}$	-65 to +200	°C
Thermal Resistance	$\theta_{JC}$	15	°C/W

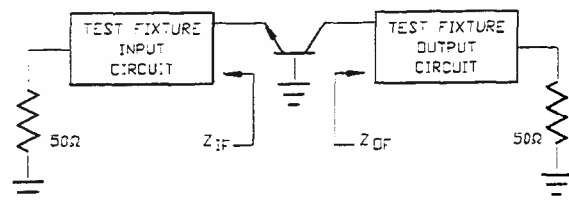


## Electrical Characteristics at 25°C

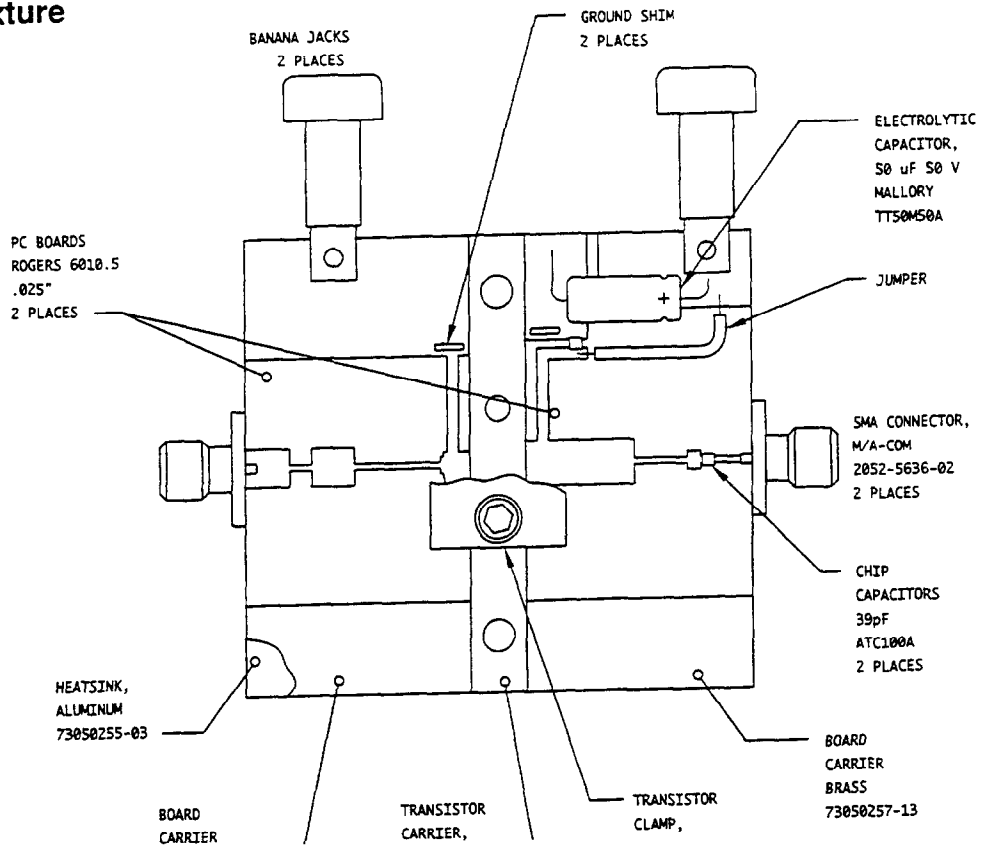
Parameter	Symbol	Min	Max	Units	Test Conditions
Collector-Emitter Breakdown Voltage	$BV_{CES}$	60	-	V	$I_C=5\text{ mA}$
Collector-Emitter Leakage Current	$I_{CES}$	-	1.0	mA	$V_{CE}=28\text{ V}$
Input Power	$P_{IN}$	-	0.48	W	$V_{CC}=28\text{ V}, P_{OUT}=3.0\text{ W}, F=2.3\text{ GHz}$
Power Gain	$G_P$	8	-	dB	$V_{CC}=28\text{ V}, P_{OUT}=3.0\text{ W}, F=2.3\text{ GHz}$
Collector Efficiency	$\eta_c$	30	-	%	$V_{CC}=28\text{ V}, P_{OUT}=3.0\text{ W}, F=2.3\text{ GHz}$
Input Return Loss	RL	6	-	dB	$V_{CC}=28\text{ V}, P_{OUT}=3.0\text{ W}, F=2.3\text{ GHz}$
Load Mismatch Tolerance	VSWR-T	-	3:1	-	$V_{CC}=28\text{ V}, P_{OUT}=3.0\text{ W}, F=2.3\text{ GHz}$

## Test Fixture Impedances

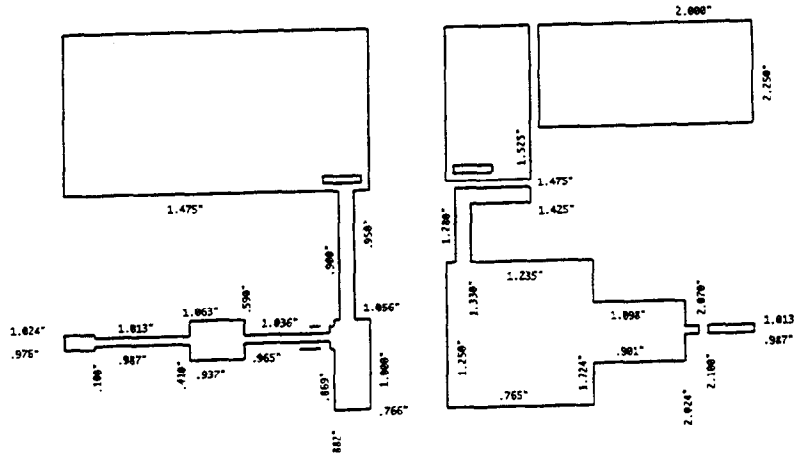
F(GHz)	$Z_{IF}(\Omega)$	$Z_{OF}(\Omega)$
2.30	$6.5 - j23.0$	$6.3 + j5.4$



RF vTest Fixture



Test Fixture PC Board Dimensions



Specifications Subject to Change Without Notice.

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