

# CW Power Transistor, 1W 2.3 GHz

PH2323-1

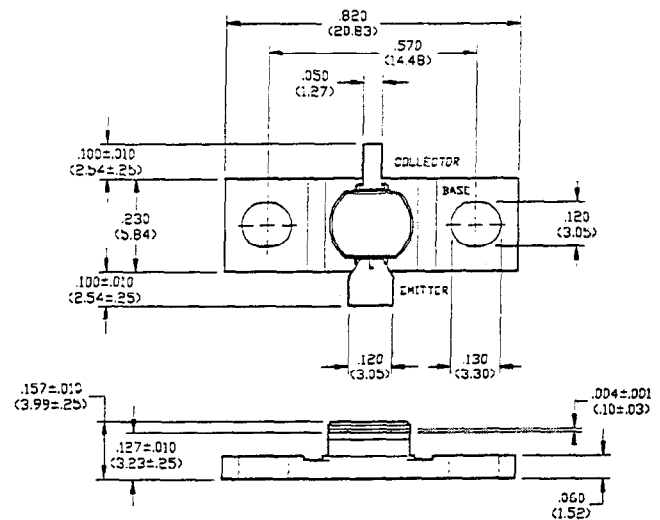
V2.00

## 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	$I_C$	0.2	A
Power Dissipation	$P_D$	7.0	W
Junction Temperature	$T_J$	200	°C
Storage Temperature	$T_{STG}$	-65 to +200	°C
Thermal Resistance	$\theta_{JC}$	25	°C/W



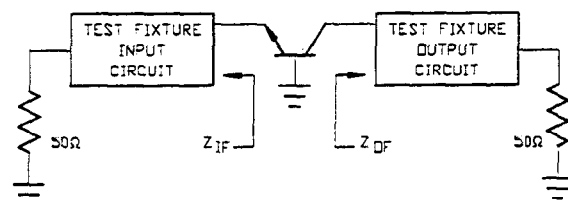
UNLESS OTHERWISE NOTED, TOLERANCES ARE INCHES ±.005" (MILLIMETERS ±.13MM)

## Electrical Characteristics at 25°C

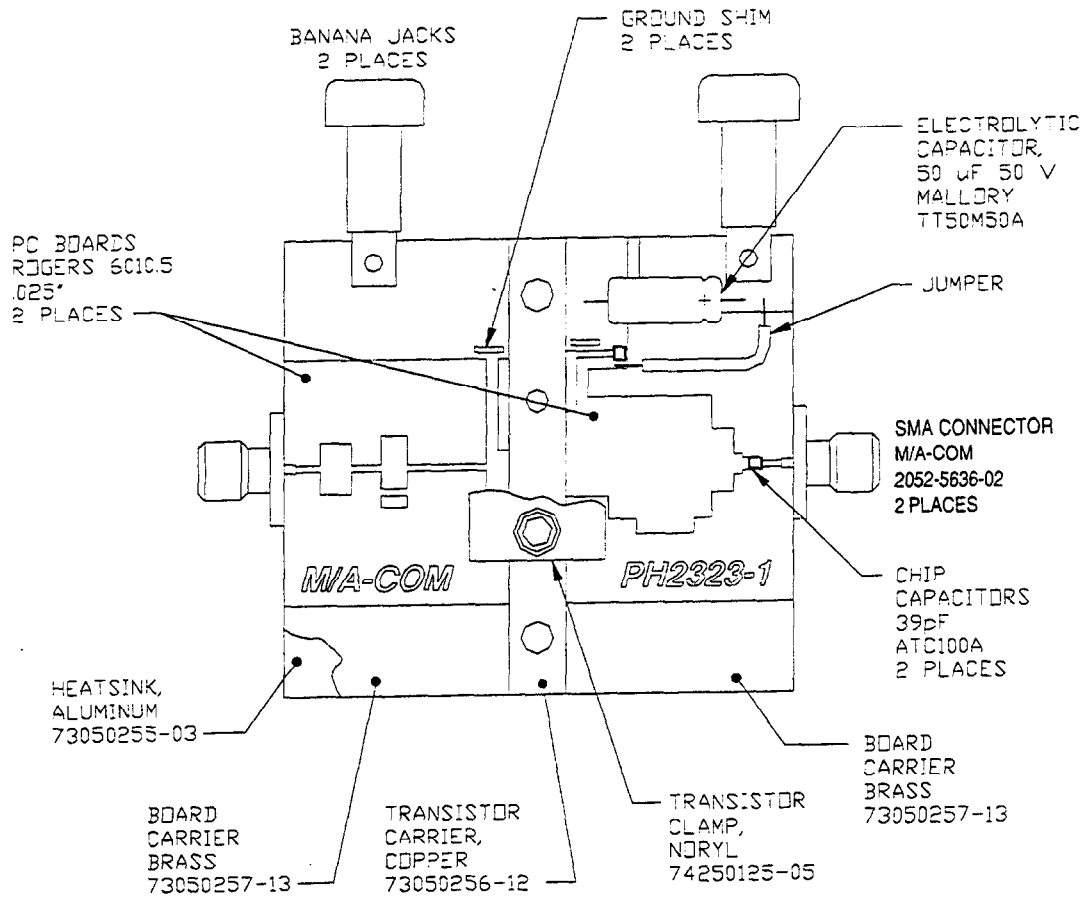
Parameter	Symbol	Min	Max	Units	Test Conditions
Collector-Emitter Breakdown Voltage	$BV_{CES}$	60	-	V	$I_C=2.5$ mA
Collector-Emitter Leakage Current	$I_{CES}$	-	0.5	mA	$V_{CE}=28$ V
Input Power	$P_{IN}$	-	0.158	W	$V_{CC}=28$ V, $P_{OUT}=1.0$ W, $F=2.3$ GHz
Power Gain	$G_P$	8	-	dB	$V_{CC}=28$ V, $P_{OUT}=1.0$ W, $F=2.3$ GHz
Collector Efficiency	$\eta_C$	30	-	%	$V_{CC}=28$ V, $P_{OUT}=1.0$ W, $F=2.3$ GHz
Input Return Loss	RL	6	-	dB	$V_{CC}=28$ V, $P_{OUT}=1.0$ W, $F=2.3$ GHz
Load Mismatch Tolerance	VSWR-T	-	3:1	-	$V_{CC}=28$ V, $P_{OUT}=1.0$ W, $F=2.3$ GHz

## Test Fixture Impedances

F(GHz)	$Z_{IF}(\Omega)$	$Z_{OF}(\Omega)$
2.30	12.5 - j26.0	3.7 + j10.4



RF Test Fixture



Test Fixture PC Board Dimensions

