

# CW Power Transistor, 5W

## 2.3 GHz

PH2323-5

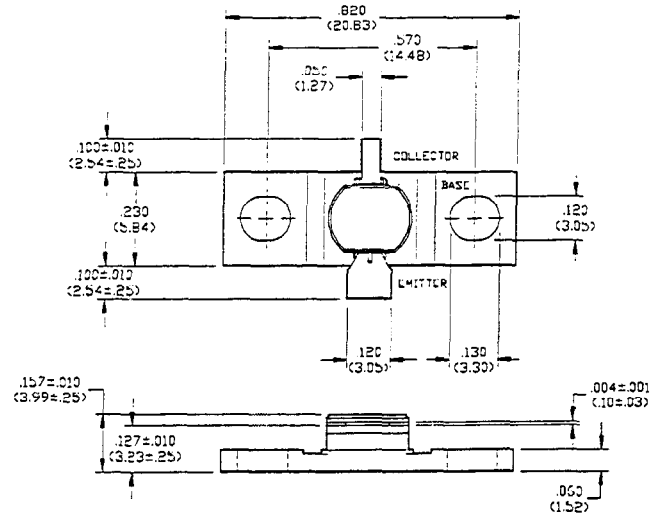
V2.00

### 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	$I_c$	0.8	A
Power Dissipation	$P_D$	25	W
Junction Temperature	$T_J$	200	°C
Storage Temperature	$T_{STG}$	-65 to +200	°C
Thermal Resistance	$\theta_{JC}$	7.0	°C/W



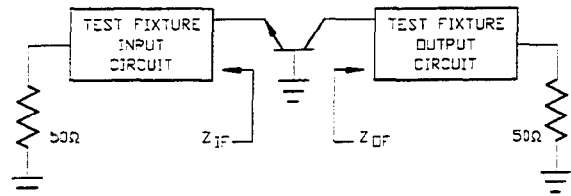
UNLESS OTHERWISE NOTED, TOLERANCES ARE INCHES ±.005\* (MILLIMETERS ±.13MM)

### Electrical Characteristics at 25°C

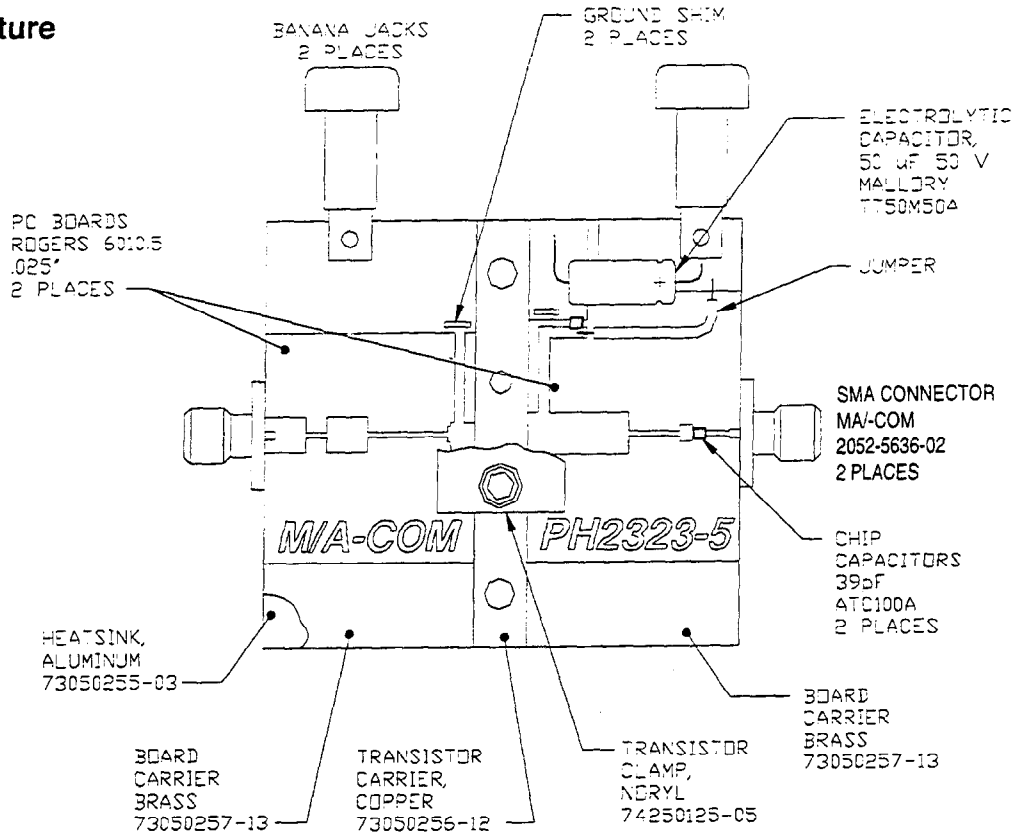
Parameter	Symbol	Min	Max	Units	Test Conditions
Collector-Emitter Breakdown Voltage	$BV_{CES}$	60	-	V	$I_c=10$ mA
Collector-Emitter Leakage Current	$I_{CES}$	-	2.0	mA	$V_{CE}=28$ V
Input Power	$P_{IN}$	-	0.79	W	$V_{CC}=28$ V, $P_{OUT}=5.0$ W, $F=2.3$ GHz
Power Gain	$G_p$	8	-	dB	$V_{CC}=28$ V, $P_{OUT}=5.0$ W, $F=2.3$ GHz
Collector Efficiency	$\eta_c$	35	-	%	$V_{CC}=28$ V, $P_{OUT}=5.0$ W, $F=2.3$ GHz
Input Return Loss	RL	6	-	dB	$V_{CC}=28$ V, $P_{OUT}=5.0$ W, $F=2.3$ GHz
Load Mismatch Tolerance	VSWR-T	-	3:1	-	$V_{CC}=28$ V, $P_{OUT}=5.0$ W, $F=2.3$ GHz

### Test Fixture Impedances

F(GHz)	$Z_{IF}(\Omega)$	$Z_{OF}(\Omega)$
2.30	$3.5 - j17.0$	$4.0 + j0.3$



RF Test Fixture



Test Fixture PC Board Dimensions

