CW Power Transistor 1W, 2.3 GHz



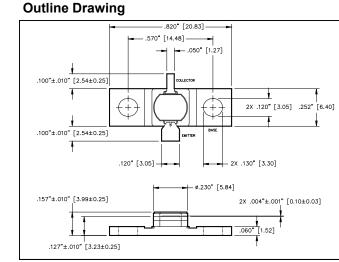
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Features

- 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 RATING AT 25°C

Parameter	Symbol	Rating	Units
Collector-Emitter Voltage	V _{CES}	60	V
Emitter-Base Voltage	V _{EBO}	3.0	V
Collector Current	Ic	0.2	А
Power Dissipation	PD	7.0	W
Junction Temperature	TJ	200	°C
Storage Temperature	T _{STG}	-65 to + 200	°C
Thermal Resistance	θ_{JC}	25	°C/W



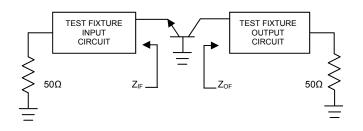
UNLESS OTHERWISE NOTED, TOLERANCES ARE INCHES $\pm .005$ " [MILLIMETERS ± 0.13 MM]

ELECTRICAL SPECIFICATIONS AT 25°C

Parameter	Symbol	Min	Max	Units	Test Conditions
Collector-Emitter Breakdown Voltage	BV _{CES}	60	-	V	I _C = 2.5mA
Collector-Emitter Leakage Current	I _{CES}	-	0.5	mA	V _{CE} = 28V
Input Power	h _{FE}	-	0.158	w	V _{CE} = 28V, P _{out} = 1.0 W, F = 2.3 GHz
Power Gain	G _P	8	-	dB	V _{CE} = 28V, P _{out} = 1.0 W, F = 2.3 GHz
Collector Efficiency	ŋC	30	-	%	V_{CE} = 28V, P_{out} = 1.0 W, F =2.3 GHz
Input Return Loss	RL	6	-	dB	V _{CE} = 28V, P _{out} = 1.0 W, F = 2.3 GHz
Load Mismatch Tolerance	VSWR	-	3:1	-	V _{CE} = 28V, P _{out} = 1.0 W, F = 2.3 GHz

TEST FIXTURE IMPEDANCES

F (GHz)	Z _{IN} (Ω)	Z _{LOAD} (Ω)
2.30	12.5-j26.0	3.7+j10.4

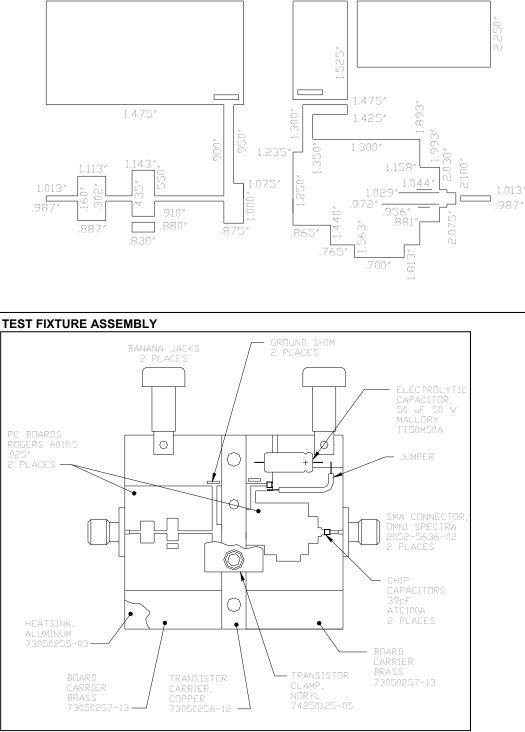


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TEST FIXTURE DIMENSIONS





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