an AMP company

Radar Pulsed Power Transistor, 130W, 100µs Pulse, 10% Duty

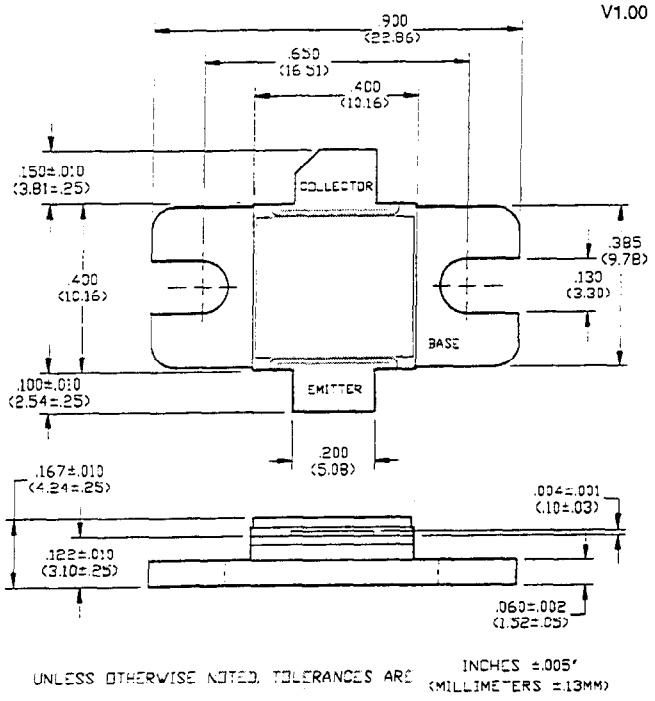
2.7 - 2.9 GHz

PH2729-130M

V1.00

Features

- NPN Silicon Microwave Power Transistor
- Common Base Configuration
- Broadband Class C Operation
- New Power Dense Interdigitated Geometry
- Diffused Emitter Ballasting Resistors
- Gold Metalization System
- Internal Input and Output Impedance Matching
- Hermetic Metal/Ceramic Package



Absolute Maximum Ratings at 25°C

Parameter	Symbol	Rating	Units
Collector-Emitter Voltage	V_{CES}	63	V
Emitter-Base Voltage	V_{EBO}	3.0	V
Collector Current (Peak)	I_C	12.5	A
Total Power Dissipation	P_{TOT}	575	W
Junction Temperature	T_J	200	°C
Storage Temperature	T_{STG}	-65 to +200	°C

Electrical Characteristics at 25°C

Parameter	Symbol	Min	Max	Units	Test Conditions
Collector-Emitter Breakdown Voltage	BV_{CES}	65	-	V	I_C=40 mA
Collector-Emitter Leakage Current	I_{CES}	-	7.5	mA	V_{CE}=36 V
Thermal Resistance	$R_{TH(JC)}$	-	0.3	°C/W	V_{CC}=36 V, P_{IN}=26 W, F=2.7, 2.9 GHz
Output Power	P_{OUT}	130	-	W	V_{CC}=36 V, P_{IN}=26 W, F=2.7, 2.9 GHz
Power Gain	G_P	7.0	-	dB	V_{CC}=36 V, P_{IN}=26 W, F=2.7, 2.9 GHz
Collector Efficiency	η_C	40	-	%	V_{CC}=36 V, P_{IN}=26 W, F=2.7, 2.9 GHz
Input Return Loss	RL	6	-	dB	V_{CC}=36 V, P_{IN}=26 W, F=2.7, 2.9 GHz
Overdrive Stability	OD-S	-	1.0	dB	V_{CC}=36 V, P_{IN}=26 W, F=2.7, 2.9 GHz
Load Mismatch Tolerance	VSWR-T	-	3:1	-	V_{CC}=36 V, P_{IN}=26 W, F=2.7, 2.9 GHz
Load Mismatch Stability	VSWR-S	-	2:1	-	V_{CC}=36 V, P_{IN}=26 W, F=2.7, 2.9 GHz