

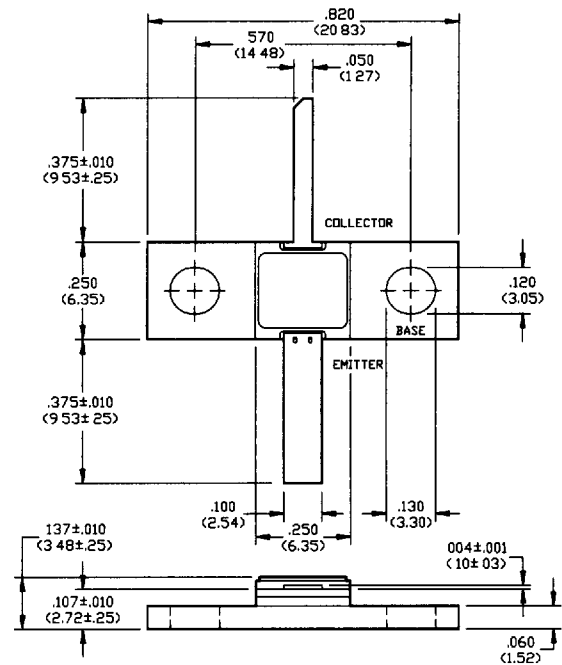


Preliminary  
15 Watts, 1030-1090 MHz, 10 μs Pulse, 1% Duty

Features

- Designed for Short Pulse IFF Applications
- NPN Silicon Microwave Power Transistor
- Common Base Configuration
- Broadband Class C Operation
- High Efficiency Interdigitated Geometry
- Diffused Emitter Ballasting Resistors
- Gold Metallization System
- Internal Input Impedance Matching
- Hermetic Metal/Ceramic Package

Outline Drawing



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

Absolute Maximum Ratings at 25°C

Parameter	Symbol	Rating	Units
Collector-Emitter Voltage	$V_{CES}$	70	V
Emitter-Base Voltage	$V_{EBO}$	3.0	V
Collector Current (Peak)	$I_C$	1.1	mA
Power Dissipation	$P_D$	40	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	$BV_{CES}$	70	-	V	$I_C=12.5$ mA
Collector-Emitter Leakage Current	$I_{CES}$	-	1.5	mA	$V_{CE}=40$ V
Thermal Resistance	$R_{TH(JC)}$	-	2.5	°C/W	$V_{CC}=28$ V, $P_{OUT}=15$ W, $F=1090$ MHz
Input Power	$P_{IN}$	-	1.9	W	$V_{CC}=28$ V, $P_{OUT}=15$ W, $F=1090$ MHz
Power Gain	$G_P$	9.0	-	dB	$V_{CC}=28$ V, $P_{OUT}=15$ W, $F=1090$ MHz
Collector Efficiency	$\eta_C$	55	-	%	$V_{CC}=28$ V, $P_{OUT}=15$ W, $F=1090$ MHz
Input Return Loss	RL	9	-	dB	$V_{CC}=28$ V, $P_{OUT}=15$ W, $F=1090$ MHz
Load Mismatch Tolerance	VSWR-T	-	10:1	-	$V_{CC}=28$ V, $P_{OUT}=15$ W, $F=1090$ MHz
Load Mismatch Stability	VSWR-S	-	1.5:1	-	$V_{CC}=28$ V, $P_{OUT}=15$ W, $F=1090$ MHz

Broadband Test Fixture Impedances

F(MHz)	$Z_{IF}(\Omega)$	$Z_{OF}(\Omega)$
1030	TBD	TBD
1090	TBD	TBD

