

GENERAL DESCRIPTION

The LDR100SB utilizes the most advanced design and process technologies. These features provide the most consistent and reliable chip and package combination designed, built and tested specifically for L-Band radar. The device is common base input/output matched in a hermetic package. Gold metallization and diffused emitter ballasting provide high reliability.

ABSOLUTE MAXIMUM RATINGS

Maximum Power Dissipation @ 25°C Case Temperature 350 W

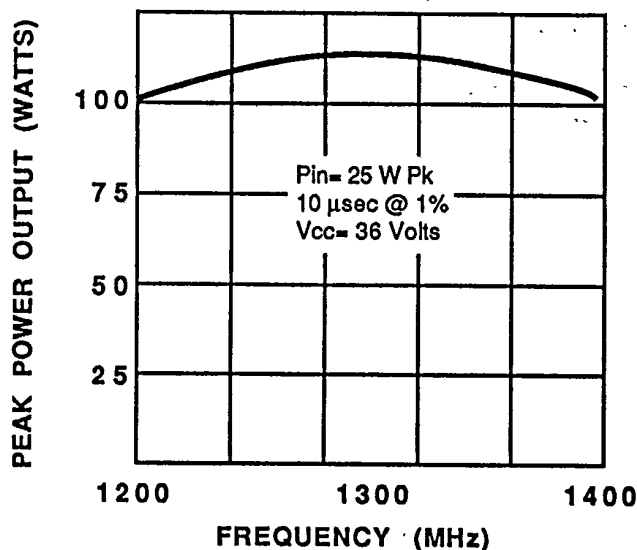
Maximum Voltage and Current

BVces Collector to Emitter Voltage 50 V
 BVebo Emitter to Base Voltage 3.5 V
 Ic Collector Current 10 A

Maximum Temperatures

Storage Temperature -65 to +200 °C
 Operating Junction Temperature +200 °C

POWER OUTPUT VS FREQUENCY (TYPICAL)

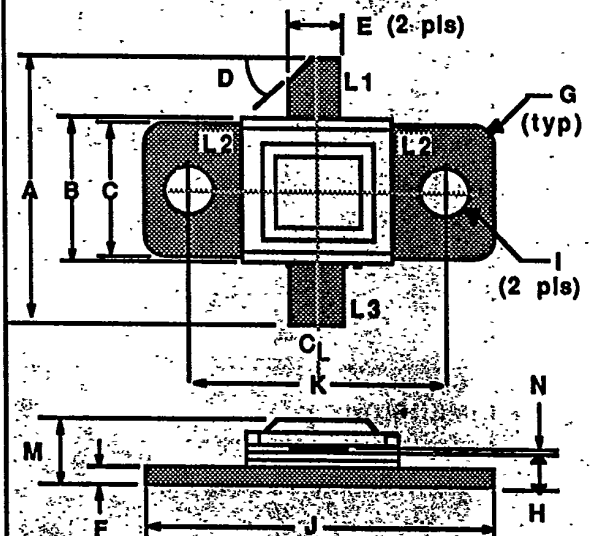


LDR100SB

100 WATTS - 36 VOLTS

1200/1400 MHz

RADAR

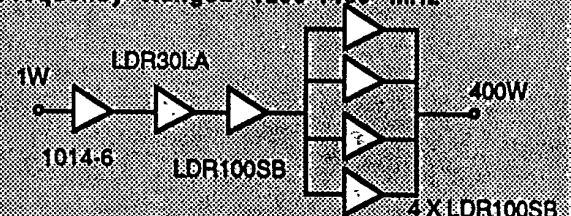


DIM	Millimeter	TOL	Inches	TOL
L1 : c				
L2 : b				
L3 : e				
A	20.32	.76	.800	.030
B	10.16	.13	.400	.005
C	9.78	.13	.385	.005
D	45.0	.50	45.0	.50
E	3.81	.13	.150	.005
F	1.52	.13	.060	.005
G	1.52 R	.13	.060 R	.005
H	3.05	.13	.120	.005
I	3.30 DIA	.13	.130 DIA	.005
J	22.86	.13	.900	.005
K	16.51	.13	.650	.005
M	5.46	REF	.215	REF
N	0.13	.02	.005	.001

TYPICAL AMPLIFIER LINE UP

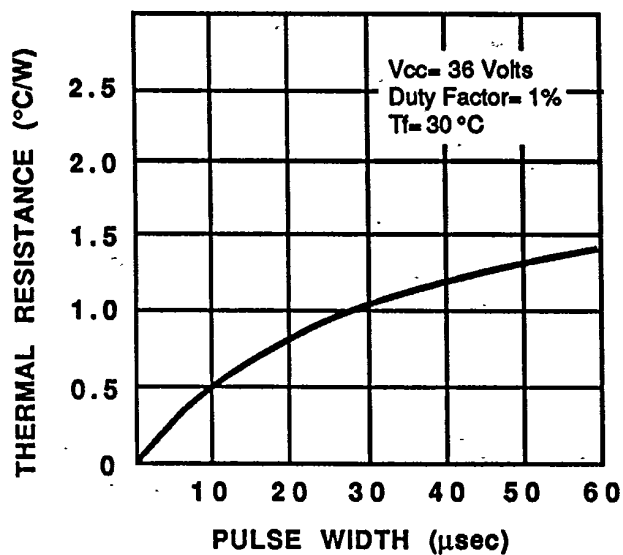
Vcc = 36 Volts

Frequency Range = 1200-1400 MHz

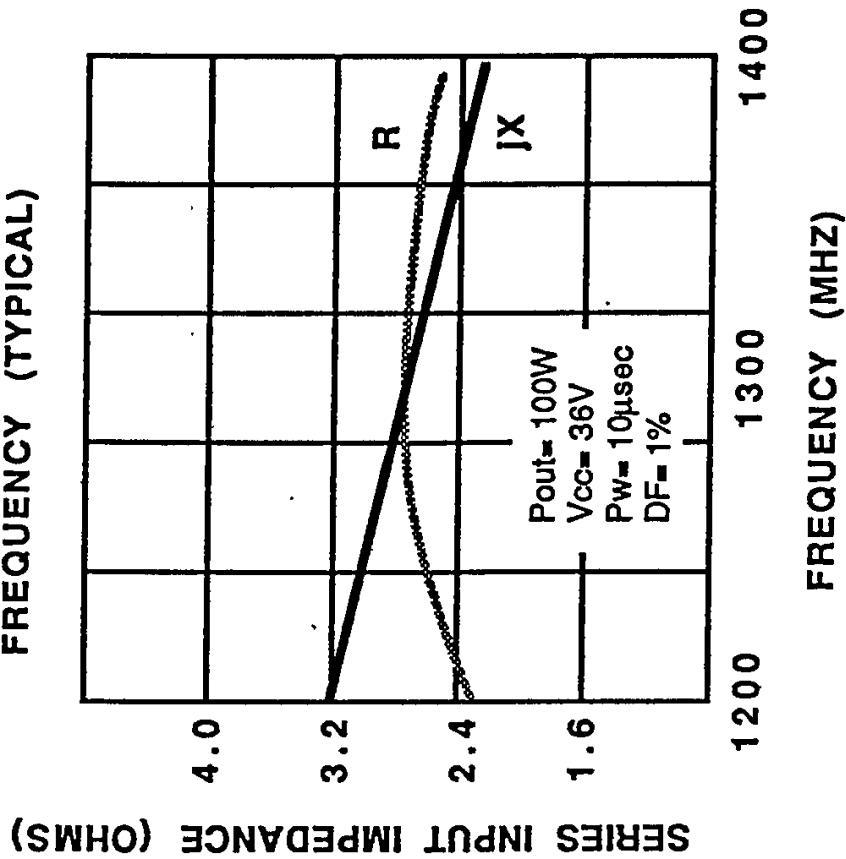


LDR100SB-2**ELECTRICAL CHARACTERISTICS¹**

SYMBOL	CHARACTERISTICS	TEST CONDITIONS	MIN.	TYP.	MAX.	UNITS
P _{out}	Power Output	f= 1200-1400 MHz V _{cc} = 36 Volts Pulse Width= 10 μ sec Duty Factor= 1%	100			Watts
P _{in}	Power Input				20	Watts
P _g	Power Gain		7.0			dB
η_c	Collector Efficiency			40		%
VSWR	Load Mismatch Tolerance				3:1	
B _{Vebo}	Breakdown Voltage (Emitter to Base)	I _e = 15mA	3.5			Volts
B _{Vces}	Breakdown Voltage (Collector to Emitter)	I _c = 100mA	50			Volts
h _{FE}	DC-Current Gain	V _{ce} = 5V, I _c = 400 mA	10			
θ_{jc}	Thermal Resistance	10 μ sec @ 1%			0.5	$^{\circ}$ C/W

Note 1: T_c = +25 $^{\circ}$ C unless otherwise specified**THERMAL RESISTANCE VS
PULSE WIDTH (TYPICAL)**

SPECIFICATIONS MAY BE SUBJECT TO CHANGE WITHOUT NOTICE

LDR100SB-3**SERIES INPUT IMPEDANCE VS
FREQUENCY (TYPICAL)****SERIES LOAD IMPEDANCE VS
FREQUENCY (TYPICAL)**