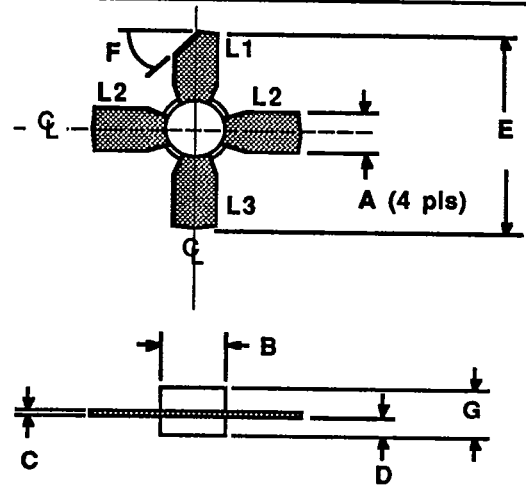


46100/46101
1 WATTS - 28 VOLTS
960 MHz

GENERAL DESCRIPTION

The 46100 is a common emitter transistor capable of providing 1 Watt of CW RF output power at 960 MHz. This transistor is specifically designed for upper UHF communications amplifier applications. It utilizes gold metallization and diffused ballasting to provide high reliability and supreme ruggedness. It is also available in a stud package version as part # 46101.

UHF COMMUNICATIONS



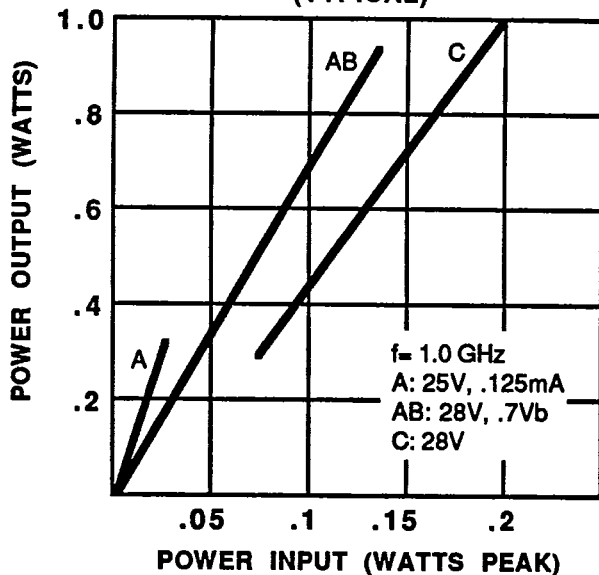
ABSOLUTE MAXIMUM RATINGS

Maximum Power Dissipation @ 25°C Case Temperature	5.5 W
Maximum Voltage and Current	
BVces Collector to Emitter Voltage	60 V
BVebo Emitter to Base Voltage	4.0 V
Ic Collector Current	0.4 A

Maximum Temperatures	
Storage Temperature	-65 to +150 °C
Operating Junction Temperature	+200 °C

DIM	Millimeter	TOL	Inches	TOL
L1 : C				
L2 : E	A	5.71	.13	.225 .005
L3 : B	B	7.11 DIA	.13	.280 DIA .005
	C	0.13	.02	.005 .001
	D	1.40	.13	.055 .005
	E	25.40	.25	1.000 .010
	F	45°	5°	45° 5°
	G	3.94	REF	.155 REF

POWER OUTPUT VS POWER INPUT (TYPICAL)

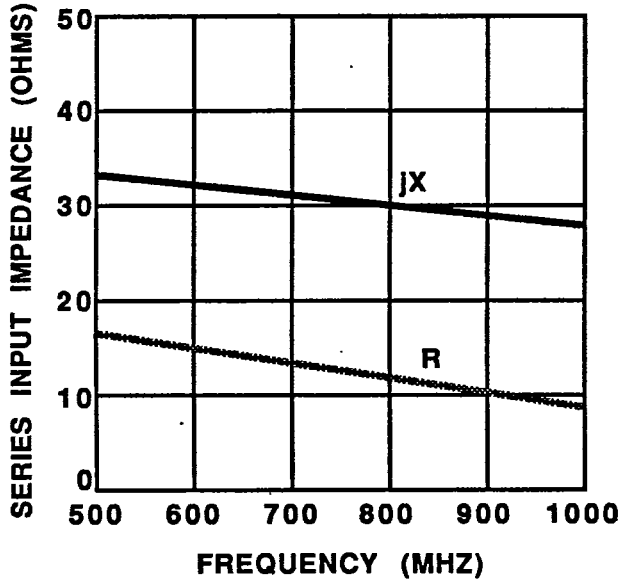


TYPICAL AMPLIFIER LINE UP
 Vcc = 28 Volts
 Frequency Range = 960 MHz

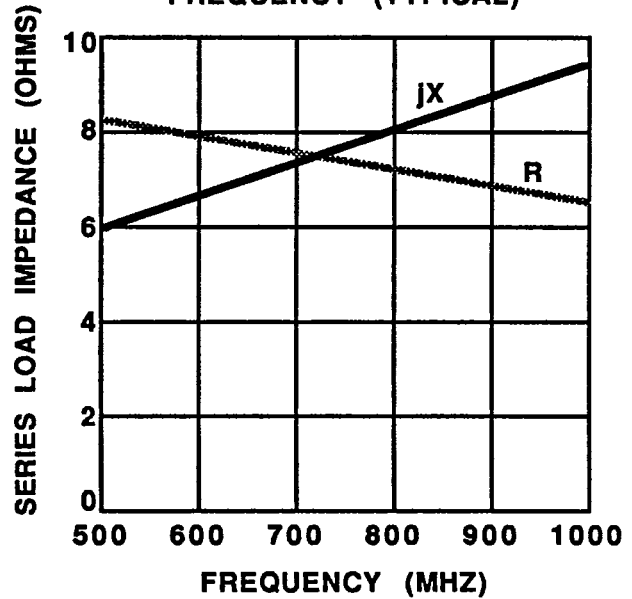


46100-3

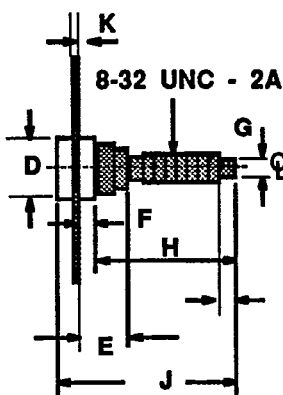
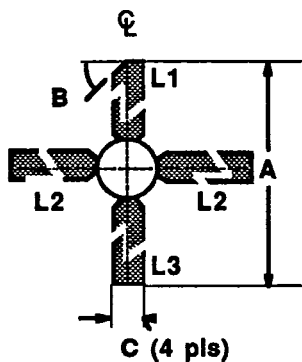
SERIES INPUT IMPEDANCE VS FREQUENCY (TYPICAL)



SERIES LOAD IMPEDANCE VS FREQUENCY (TYPICAL)

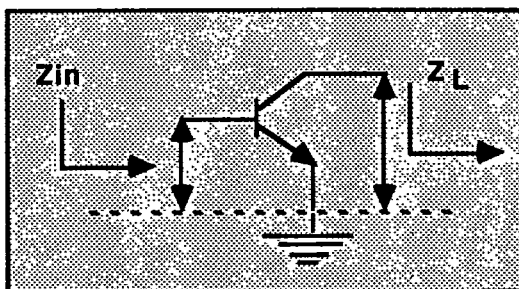


STUD PACKAGE FOR 46101



L1 : C
L2 : E
L3 : B

DIM	Millimeter	TOL	Inches	TOL
A	25.40	.25	1.000	.010
B	45°	5°	45°	5°
C	5.71	.13	.225	.005
D	6.99 DIA	.13	.275 DIA	.005
E	4.44	.13	.175	.005
F	1.52	.13	.060	.005
G	3.05	.13	.120	.005
H	12.95	.25	.510	.010
I	3.30	.13	.130	.005
J	16.64	REF	.655	REF
K	0.13	.02	.005	.001



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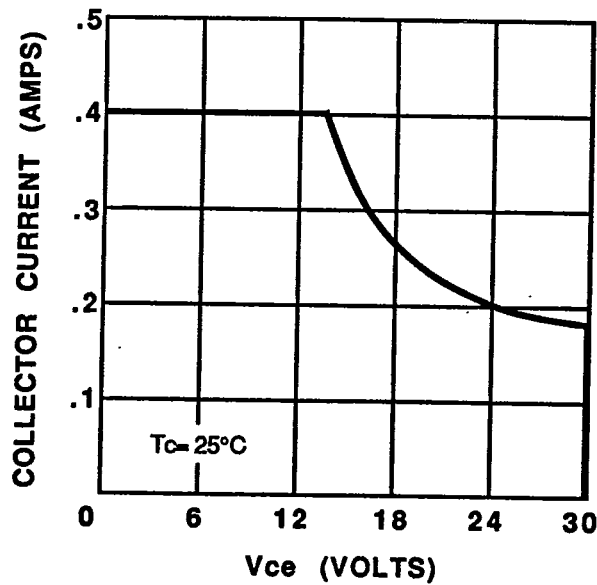
46100-2

ELECTRICAL CHARACTERISTICS¹

SYMBOL	CHARACTERISTICS	TEST CONDITIONS	MIN.	TYP.	MAX.	UNITS
P _{out}	Power Output	f = 960 MHz V _{cc} = 28 V Class C	1.0			Watts
P _{in}	Power Input				0.2	Watts
P _g	Power Gain		7.0			dB
η _c	Collector Efficiency			50		%
V _{SWR}	Load Mismatch Tolerance				∞:1	
B _{Vebo}	Breakdown Voltage (Emitter to Base)	I _c = 0A, I _e = 5mA	4.0			Volts
B _{Vces}	Breakdown Voltage (Collector to Emitter)	V _{be} = 0A, I _c = 20 mA	60			Volts
B _{Vceo}	Breakdown Voltage (Collector to Emitter)	I _b = 0A, I _c = 50mA	30			Volts
C _{ob}	Capacitance-Collector to Base	V _{cb} = 28V, f = 1.0 MHz		3.2		pF
h _{FE}	DC-Current Gain	V _{cc} = 5V, I _c = 100 mA	10			
θ _{jc}	Thermal Resistance				32	°C/W

Note 1: T_c = +25°C unless otherwise specified

DC SAFE OPERATING AREAS (TYPICAL)



SPECIFICATIONS MAY BE SUBJECT TO CHANGE WITHOUT NOTICE

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