

GENERAL DESCRIPTION

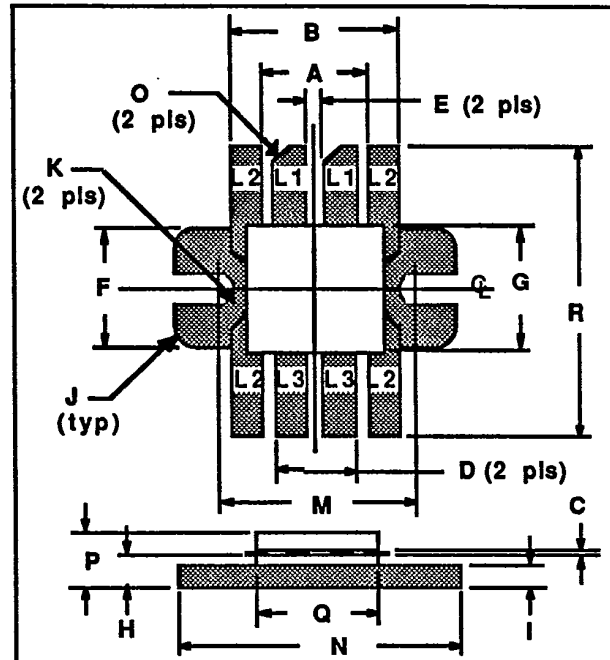
The 0105-100 is an internally matched, balanced transistor designed for broadband applications. It may be operated Class A, AB or C and is an improved drop-in replacement for the BAL0105-100. Thin film gold metallization and surface passivation provide high reliability and diffused emitter ballast resistors assure excellent ruggedness.

0105-100
100 WATTS - 28 VOLTS
100-500 MHz

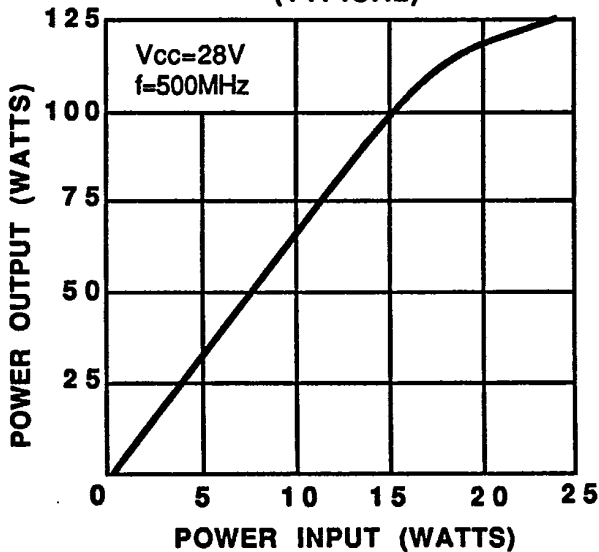
UHF-BROADBAND BIPOLAR

ABSOLUTE MAXIMUM RATINGS

Maximum Power Dissipation @ 25 C Case Temperature	270 W
Maximum Voltage and Current	
BV _{ces} Collector to Emitter Voltage	60 V
BV _{ebo} Emitter to Base Voltage	4.0 V
I _c Collector Current	16 A
Maximum Temperatures	
Storage Temperature	-65 to +150°C
Operating Junction Temperature	+200°C



POWER OUTPUT VS POWER INPUT (TYPICAL)



DIM	Millimeter	TOL	Inches	TOL	
L1 : C	A	9.14	.13	.360	.005
L2 : E	B	12.70	.13	.500	.005
L3 : B	C	0.13	.02	.005	.001
	D	6.86	.13	.270	.005
	E	0.76	.13	.030	.005
	F	9.78	.13	.385	.005
	G	10.16	.13	.400	.005
	H	4.19	.13	.165	.005
	I	3.17	.13	.125	.005
	J	1.52 R	.13	.060 R	.005
	K	1.65 R	.13	.065 R	.005
	M	16.51	.13	.650	.005
	N	22.86	.13	.900	.005
	O	45°	5°	45°	5°
	P	6.35	REF	.250	REF
	Q	10.77	.13	.424	.005
	R	19.05	.25	.750	.010

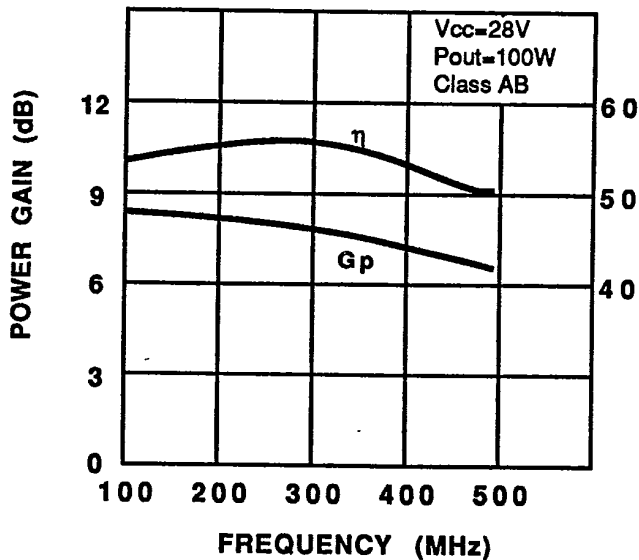
0105-100-2

ELECTRICAL CHARACTERISTICS

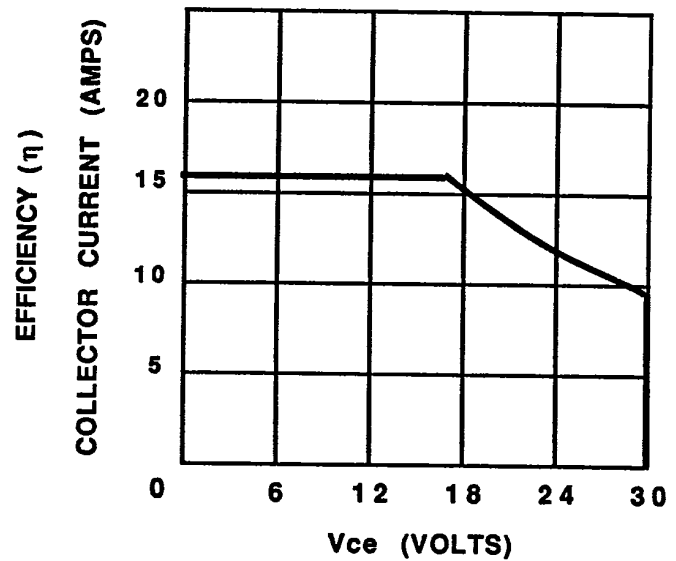
SYMBOL	CHARACTERISTICS	TEST CONDITIONS	MIN.	TYP.	MAX.	UNITS
Pout	Power Output	f=500MHz, Vc=28V Class C	100			Watts
Pin	Power Input	At Rated Power Output			24	Watts
Pg	Power Gain			7.5		dB
BVebo	Voltage - Emitter to Base	Ie=5mA	4.0			Volts
BVces	Voltage - Collector to Emitter	Ic=100mA	60			Volts
BVceo	Voltage - Collector to Emitter	Ic=50mA	31			Volts
VSWR	Load Mismatch Tolerance	f=500MHz, Vc=28V, Po=100W			5:1	
η_C	Efficiency		50			%
Ccb ¹	Capacitance-Collector to Base	f=1MHz, Vcb=28V		140		pF
h _{FE}	DC-Current Gain	Vc=5V, Ic=500mA	10			
θ_{jc}	Thermal Resistance	TC=25°C			0.65	°C/W

NOTE 1 Both sides together, all other specifications each side tested separately.

PERFORMANCE VS FREQUENCY (TYPICAL)



DC SAFE OPERATING AREA (TYPICAL)

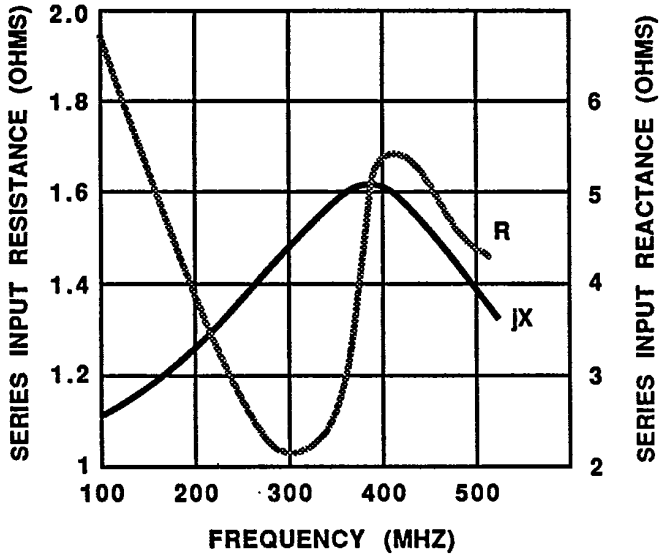


SPECIFICATIONS MAY BE SUBJECT TO CHANGE WITHOUT NOTICE

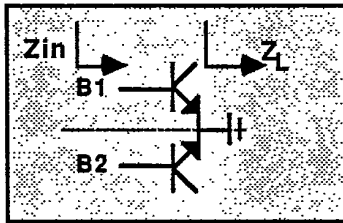
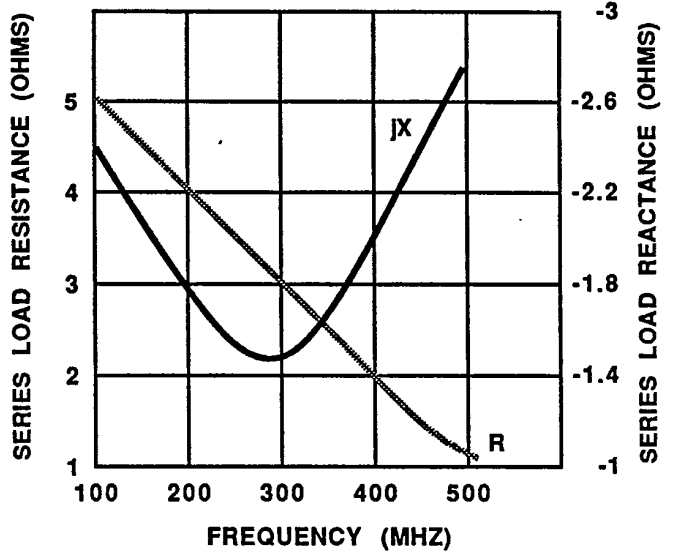
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SERIES INPUT IMPEDANCE VS FREQUENCY (TYPICAL)



SERIES LOAD IMPEDANCE VS FREQUENCY (TYPICAL)



TYPICAL AMPLIFIER LINE UP
 Vcc = 28 Volts
 Frequency Range = 100-500 MHz

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