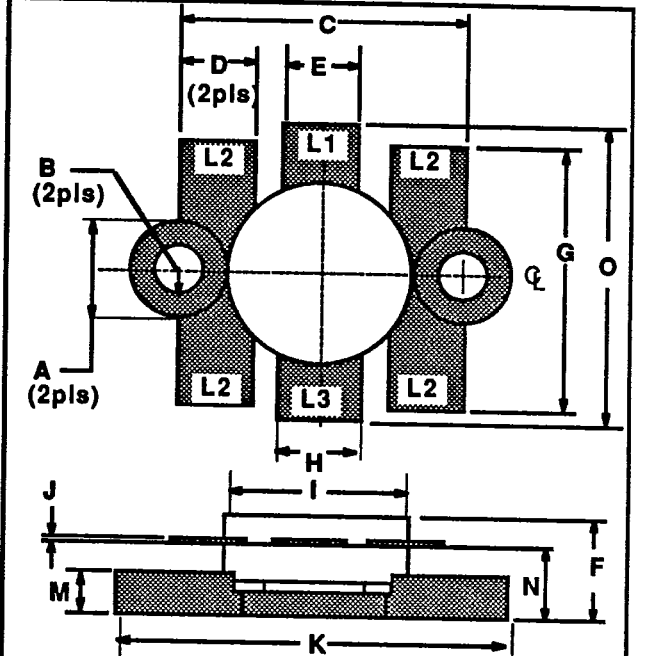


GENERAL DESCRIPTION

The UMIL60 is a double input matched broadband transistor specifically intended for use in the 225-400 MHz frequency band. It may be operated Class A, AB, or C. Gold metallization and silicon diffused resistors ensure ruggedness and high reliability. The UMIL60 is an improved drop-in replacement for the C2M60-28.

UMIL60
60 WATTS - 28 VOLTS
225-400 MHz

UHF COMMUNICATIONS



DIM	Millimeter	TOL	Inches	TOL
A	6.35 DIA	.13	.250 DIA	.005
B	3.17 DIA	.13	.125 DIA	.005
C	18.49	.13	.728	.005
D	5.08	.13	.200	.005
E	4.57	.13	.180	.005
F	6.60	REF	.260	REF
G	25.14	.25	.990	.010
H	6.69	.13	.224	.005
I	12.70 DIA	.13	.500 DIA	.005
J	0.13	.02	.005	.001
K	24.76	.13	.975	.005
M	3.17	.13	.125	.005
N	4.32	.13	.170	.005
O	36.83	.25	1.450	.010

ABSOLUTE MAXIMUM RATINGS

Maximum Power Dissipation @ 25°C Case Temperature 140 W

Maximum Voltage and Current

BVces Collector to Emitter Voltage 60 V

BVebo Emitter to Base Voltage 4.0 V

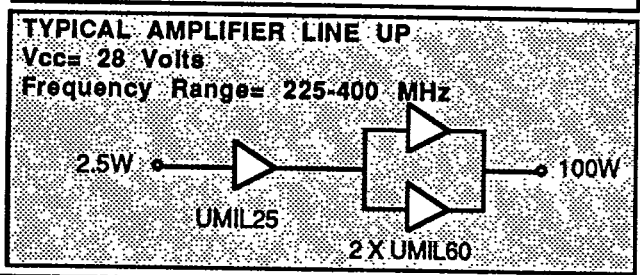
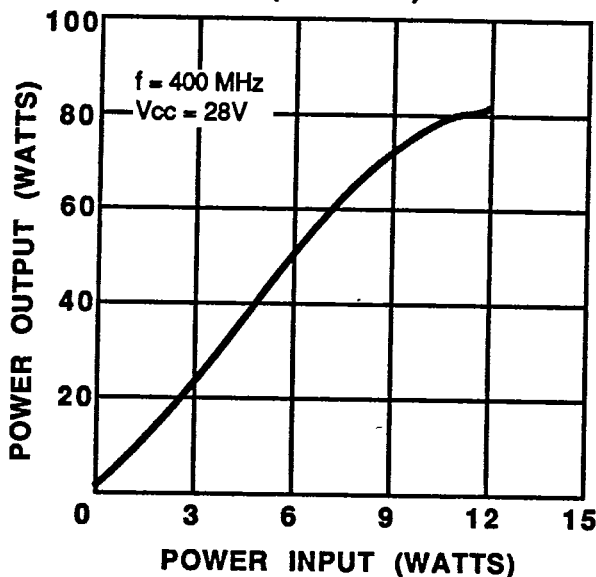
Ic Collector Current 8 A

Maximum Temperatures

Storage Temperature -65 to +150 °C

Operating Junction Temperature +200 °C

POWER OUTPUT VS POWER INPUT (TYPICAL)

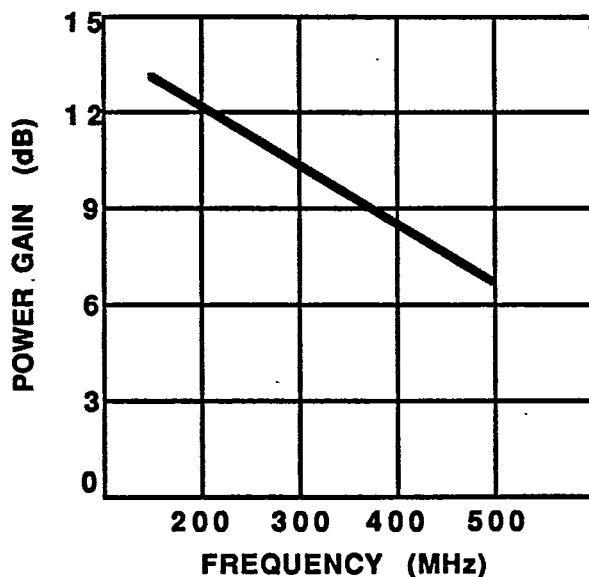
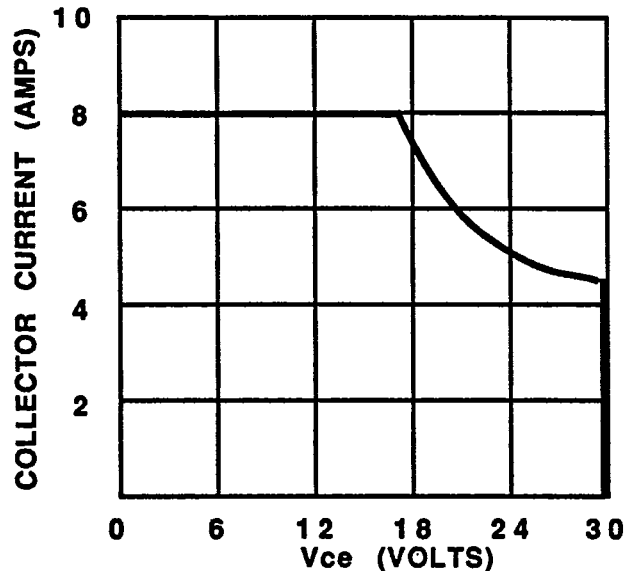


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UMIL60-2

ELECTRICAL CHARACTERISTICS¹

SYMBOL	CHARACTERISTICS	TEST CONDITIONS	MIN.	TYP.	MAX.	UNITS
P _{out}	Power Output	f = 400MHz V _{cc} = 28V	60			Watts
P _{in}	Power Input				8	Watts
P _g	Power Gain		8.8	9.0		dB
η_c	Collector Efficiency			60		%
V _{SWR}	Load Mismatch Tolerance				5:1	
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 = 50mA	60			Volts
B _{Vceo}	Breakdown Voltage (Collector to Emitter)	I _b = 0A, I _c = 50mA	33			Volts
C _{ob}	Capacitance-Collector to Base	V _{cb} = 28V, f = 1MHz			75	pF
h _{FE}	DC-Current Gain		10			
θ_{jc}	Thermal Resistance				1.25	°C/W

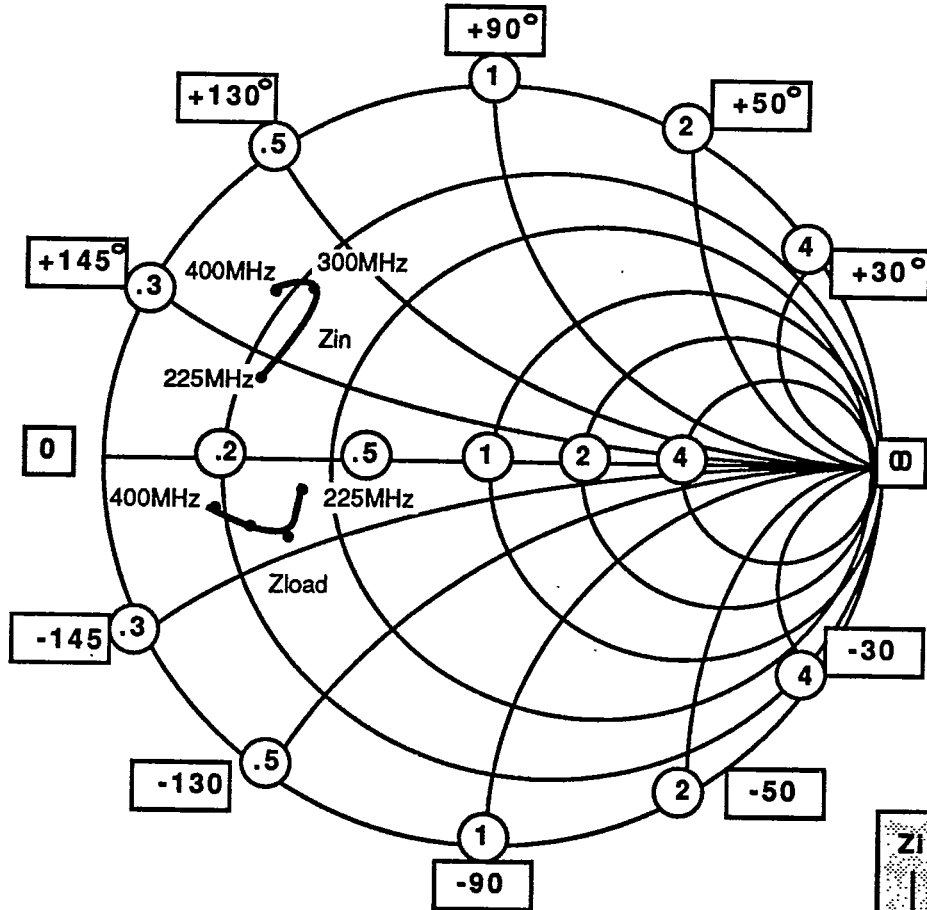
Note 1: T_c = +25°C unless otherwise specified**POWER GAIN VS FREQUENCY (TYPICAL)****DC SAFE OPERATING AREA (TYPICAL)**

SPECIFICATIONS MAY BE SUBJECT TO CHANGE WITHOUT NOTICE

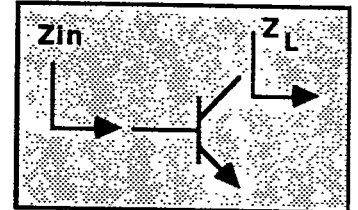
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SMITH CHART UMIL60

NORMALIZED IMPEDANCE AND ADMITTANCE COORDINATES



NORMALIZED TO A 10 OHM SYSTEM.



FREQUENCY MHz	R	Zin JX	FREQUENCY MHz	R	Zload JX
225	2.4	+2.5	225	4.0	-1.6
300	2.3	+4.4	300	3.6	-2.5
350	2.3	+4.0	350	2.7	-1.8
400	2.0	+2.9	400	2.0	-1.5