S15-28

15 WATTS - 28 VOLTS 1.5 - 30 MHZ

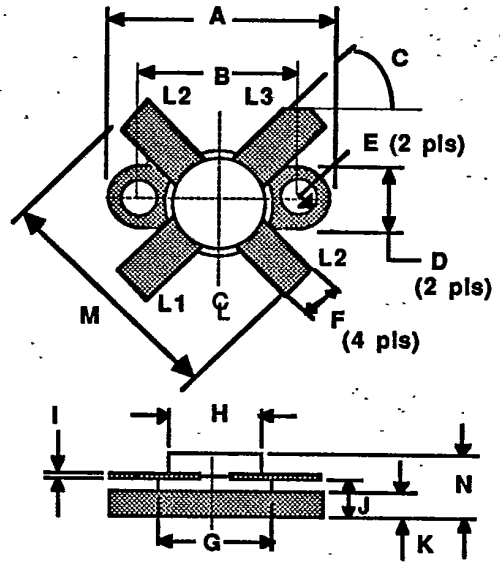
HF COMMUNICATIONS

GENERAL DESCRIPTION

The S15-28 is designed for driver and output applications in the HF, 1.6-30 MHz range. It features state-of-the-art ruggedness and linearity and may be operated Class A, AB or C.

ABSOLUTE MAXIMUM RATINGS

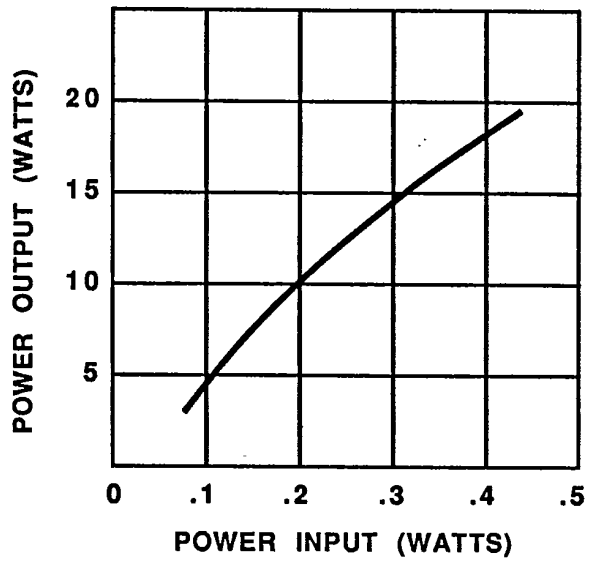
Maximum Power Dissipation @ 25 °C Case Temperature		35 W
Maximum Voltage and Current		
BVces	Collector to Emitter Voltage	60 V
BVebo	Emitter to Base Voltage	4.0 V
Ic	Collector Current	2.0 A
Maximum Temperatures		
Storage Temperature		-65 to +150 °C
Operating JunctionTemperature		+200 °C



L1 : B
L2 : E
L3 : C

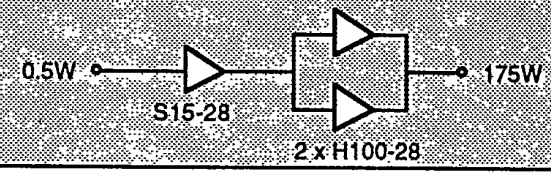
DIM	Millimeter	TOL	Inches	TOL
A	24.76	.13	.975	.005
B	18.41	.13	.725	.005
C	45°	5°	45°	5°
D	6.35	.13	.250	.005
E	3.17	.13	.125	.005
F	5.69	.13	.224	.005
G	9.52	.13	.375	.005
H	8.63	.13	.340	.005
I	0.13	.02	.005	.001
J	4.32	.13	.170	.005
K	2.54	.13	.100	.005
M	25.55	.25	1.006	.010
N	6.68	REF	.263	REF

POWER OUTPUT VS POWER INPUT (TYPICAL)



TYPICAL AMPLIFIER LINE UP

Vcc= 28Volts
Frequency Range= 1.5-30 MHz



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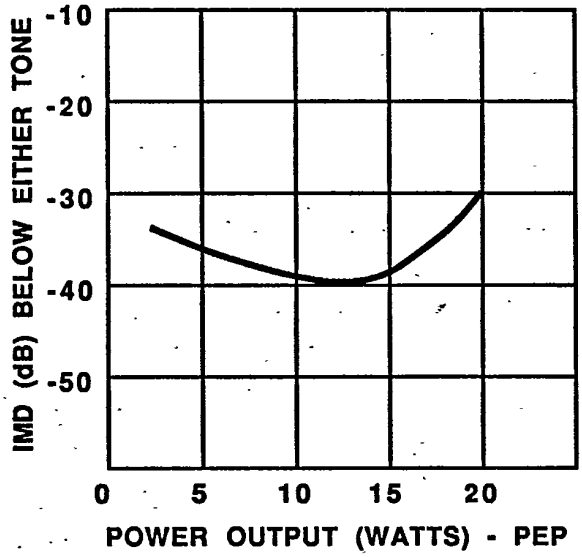
ELECTRICAL CHARACTERISTICS[1]

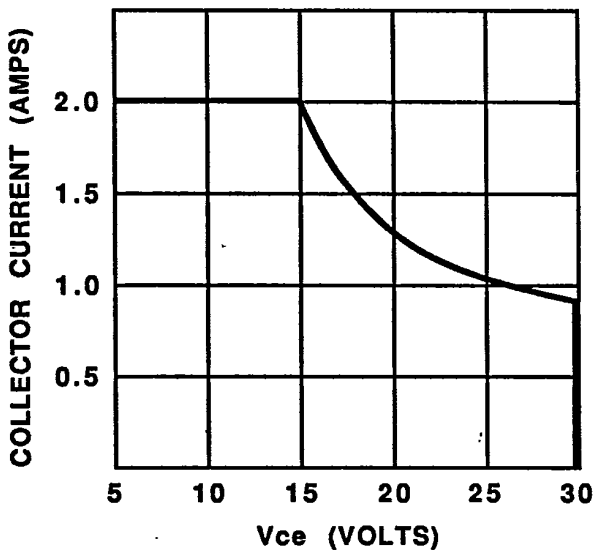
SYMBOL	CHARACTERISTICS	TEST CONDITIONS	MIN.	TYP.	MAX.	UNITS
Pout	Power Output	f= 30MHZ Vcc= 28V	15			Watts
Pin	Power Input				0.5	Watts
Pg	Power Gain		15			dB
η_c	Collector Efficiency			60		%
VSWR	Load Mismatch Tolerance				∞:1	
BVebo	Breakdown Voltage (Emitter to Base)	Ic= 0A, Ie= 5mA	4.0			Volts
BVces	Breakdown Voltage (Collector to Emitter)	Vbe= 0A, Ic= 15mA	60			Volts
BVceo	Breakdown Voltage (Collector to Emitter)	Ib= 0A, Ic= 50mA	33			Volts
IMD	Intermodulation Distortion	15W (PEP), f= 30 MHz		-38	-35	dBc
Cob	Capacitance- Collector to Base	Vcb= 28V, f= 1 MHz		20		pF
h_{FE}	DC-Current Gain	Vce= 5V, Ic= 1A	10		100	
θjc	Thermal Resistance				5	°C/W

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

IMD VS POWER OUTPUT (TYPICAL)



DC SAFE OPERATING AREA (TYPICAL)



SPECIFICATIONS MAY BE SUBJECT TO CHANGE WITHOUT NOTICE