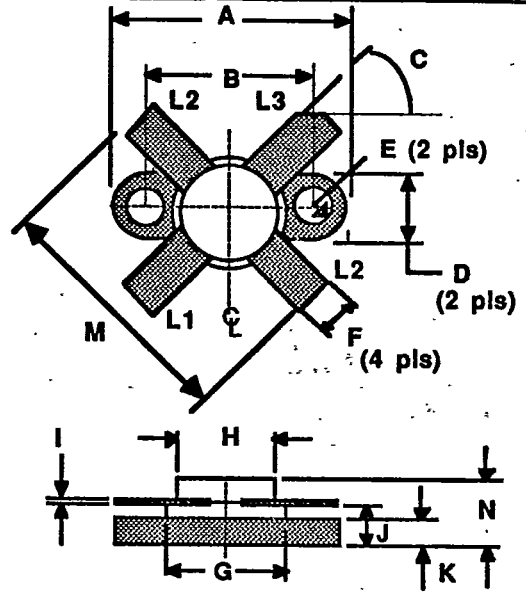


GENERAL DESCRIPTION

The S25-12 is a common emitter transistor recommended for use in HF Linear amplifiers. Its low distortion, high efficiency and ruggedness make it ideal for use in drive and output stages.

S25-12
25 WATTS - 12.5 VOLTS
1.5-30 MHz

HF COMMUNICATIONS



ABSOLUTE MAXIMUM RATINGS

Maximum Power Dissipation @ 25°C Case Temperature
 Total Power Dissipation **80 W**

Maximum Voltage and Current

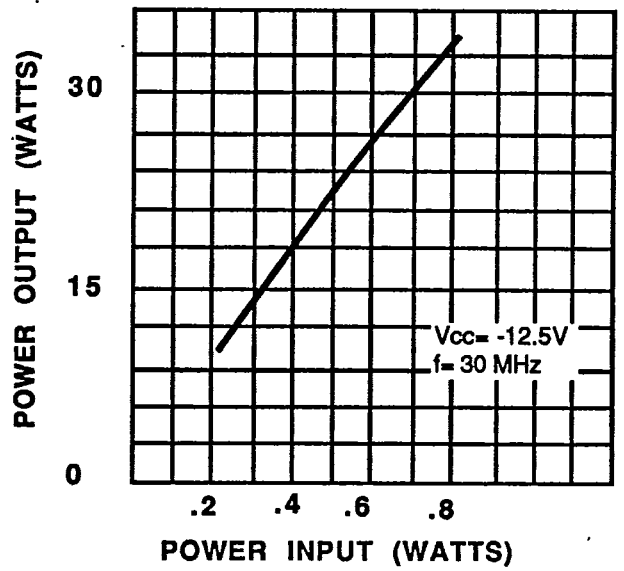
BVces Collector to Emitter Voltage **36 V**
 BVebo Emitter to Base Voltage **4.0 V**
 Ic Collector Current **8.0 A**

Maximum Temperatures

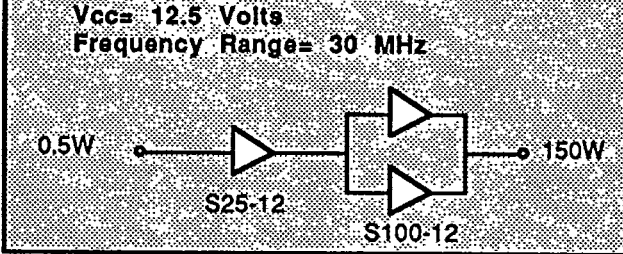
Storage Temperature **-65 to +150 °C**
 Operating Junction Temperature **+200 °C**

DIM	Millimeter	TOL	Inches	TOL	
L1 : B	A	24.76	.13	.975	.005
L2 : E	B	18.41	.13	.725	.005
L3 : C	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

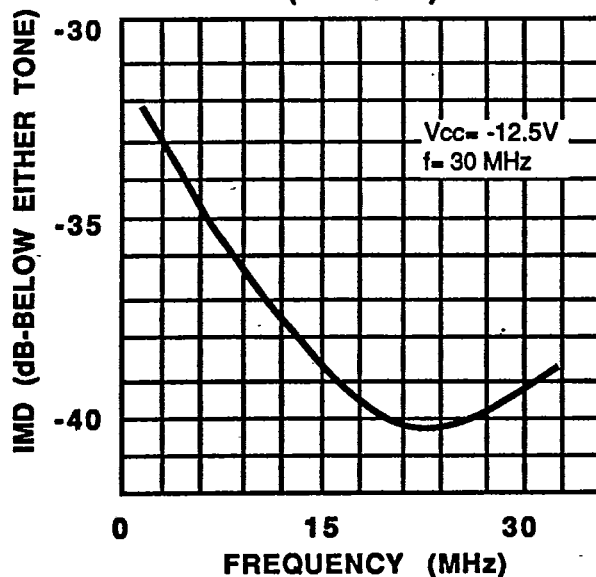
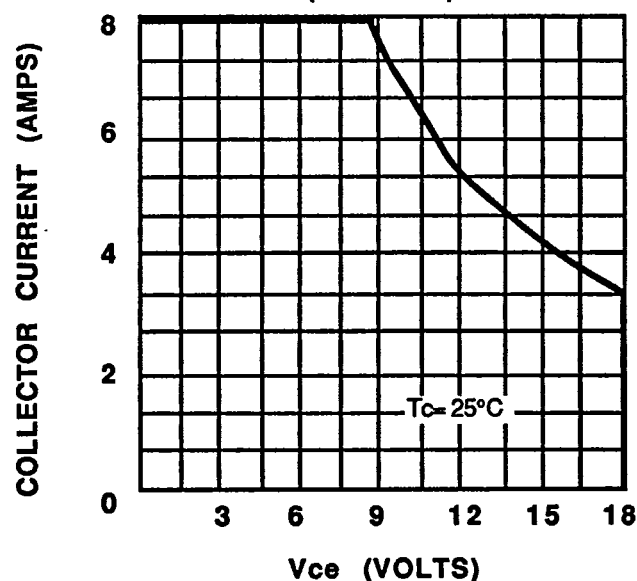


106

S25-12-2

ELECTRICAL CHARACTERISTICS¹

SYMBOL	CHARACTERISTICS	TEST CONDITIONS	MIN.	TYP.	MAX.	UNITS
P _{out}	Power Output	f = 80w V _{cc} = 12.5V	25	30		Watts
P _{in}	Power Input				0.75	Watts
P _g	Power Gain		15			dB
η _c	Collector Efficiency			60		%
VSWR	Output VSWR Capability				∞ : 1	
BV _{ebo}	Breakdown Voltage (Emitter to Base)	I _c = 0A, I _e = 5 mA	4.0			Volts
BV _{ces}	Breakdown Voltage (Collector to Emitter)	V _{be} = 0A, I _c = 20 mA	36			Volts
BV _{ceo}	Breakdown Voltage (Collector to Emitter)	I _e = 0, I _c = 50mA	18			Volts
IMD	3rd Order Products	f = 30 MHz, V _{cc} = 12.5		-36		dBc
C _{ob}	Capacitance- Collector to Base	f = 1 MHz, V _{cc} = 12.5, I _e = 0		120		pF
h _{FE}	DC-Current Gain	V _{ce} = 5V, I _c = 1A	10			
θ _{jc}	Thermal Resistance				2.2	°C/W

Note 1: T_c = +25°C unless otherwise specifiedIMD VS POWER OUTPUT
(TYPICAL)DC SAFE OPERATING AREA
(TYPICAL)

SPECIFICATIONS MAY BE SUBJECT TO CHANGE WITHOUT NOTICE

109

S25-12-3

Zin VS FREQUENCY
(TYPICAL)

