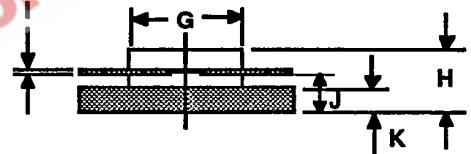
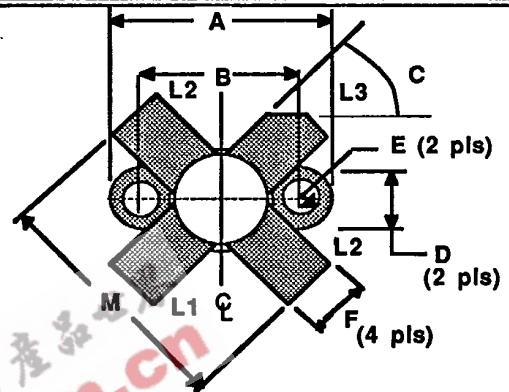


### GENERAL DESCRIPTION

The S25-50 is specifically recommended as an HF, SSB output or driver from a 50 volts supply. This superbly linear device is ruggedized and emitter ballasted, and may be operated class A, AB or C in output or driver stages.

**S25-50**  
**25 WATTS - 12.5 VOLTS**  
**1.5-30 MHz**

### HF COMMUNICATIONS



DIM	Millimeter	TOL	Inches	TOL	
L1 : B	A	24.76	.13	.975	.005
L2 : E	B	18.42	.13	.725	.005
L3 : C	C	45°	5°	45°	5°
	D	6.35	.13	.250	.005
	E	3.17 DIA	.13	.125 DIA	.005
	F	5.71	.13	.225	.005
	G	12.70 DIA	.13	.500 DIA	.005
	H	6.65	REF	.262	REF
	I	0.13	.02	.005	.001
	J	4.24	.13	.167	.005
	K	3.17	.13	.125	.005
	M	28.45	.25	1.120	.010

### ABSOLUTE MAXIMUM RATINGS

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

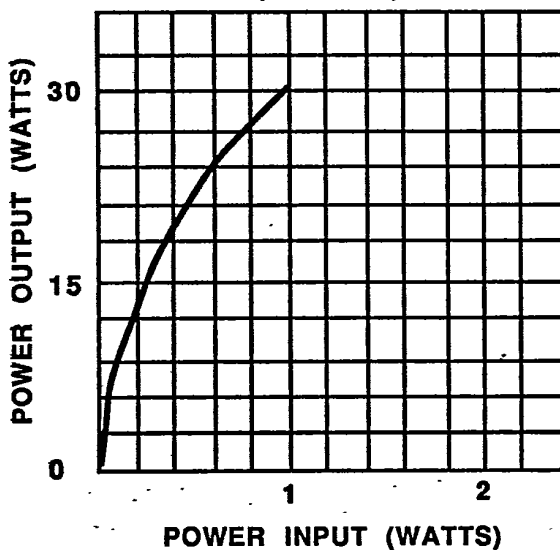
### Maximum Voltage and Current

BVces Collector to Emitter Voltage **110 V**  
 BVebo Emitter to Base Voltage **4.0 V**  
 Ic Collector Current **5.0 A**

### Maximum Temperatures

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

### POWER OUTPUT VS POWER INPUT (TYPICAL)



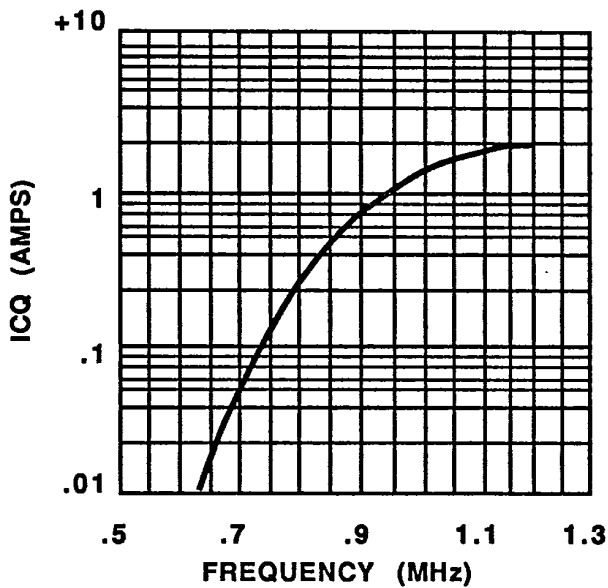
**S25-50-2**

**ELECTRICAL CHARACTERISTICS<sup>1</sup>**

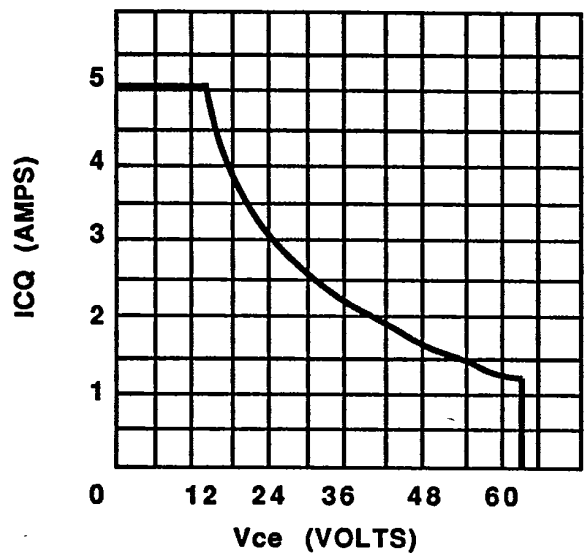
SYMBOL	CHARACTERISTICS	TEST CONDITIONS	MIN.	TYP.	MAX.	UNITS
Pout	Power Output (PEP)	f=30 MHz Vcc= 50V	25			Watts
Pin	Power Input (PEP)				1.0	Watts
Pg	Power Gain			15		dB
$\eta_c$	Collector Efficiency			55		%
VSWR	Output VSWR Capability					$\infty:1$
BVebo	Breakdown Voltage (Emitter to Base)	Ic= 0A, Ie= 10 mA	4.0			Volts
BVces	Breakdown Voltage (Collector to Emitter)	Vbe= 0A, Ic= 100mA	110			Volts
BVceo	Breakdown Voltage (Collector to Emitter)	Ib= 0A, Ic= 100mA	65			Volts
BVcbo	Breakdown Voltage (Collector - Base)	Ie= 0A, Icb= 100 mA				Volts
Ices	Collector Leakage Current	Ie= 0A, Vce= 50V				mA
IMD	3rd Order Products	Pin Conditions		-35	-33	dBc
Cob	Capacitance-Collector to Base	f= 1MHz, Vcb= 50V	55			pF
$h_{FE}$	DC-Current Gain	Vce= 5V, Ic= 500mA	10		100	
$\theta_{jc}$	Thermal Resistance				2.2	$^{\circ}C/W$

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

**ICQ vs VBE (TYPICAL)**



**DC SAFE OPERATING AREA (TYPICAL)**



SPECIFICATIONS MAY BE SUBJECT TO CHANGE WITHOUT NOTICE

**S25-50-3**

