


1、Features

- Low speed switching
- Recommended Applications: Audio Frequency Power Amplifier
- Complement to B772

2、Pinning information

PIN	Description	Simplified outline
1	Emitter(E)	
2	Collector(C)	
3	Base(B)	

3、Limiting value

(Ta = 25℃ unless otherwise noted).

SYMBOL	PARAMETER	Limit	UNIT
Vcbo	Collector-Base Voltage	40	V
Vceo	Collector-Emitter Voltage	30	V
Vebo	Emitter-Base Voltage	5	V
Ic	Collector Current	DC	A
		Pulse	
Pd	Collector Power Dissipation		W
		TO-126	
Tj	Operating Junction Temperature	+150	℃
Tstg	Operating Junction and Storage Temperature Range	-55 to +150	℃

4、Electrical Characteristics (Ta = 25℃ unless otherwise noted)

SYMBOL	PARAMETER	CONDITIONS	MIN	Typ	MAX	UNIT
BVcbo	Collector-Base Voltage	IC = 500uA, IB = 0	40			V
BVceo	Collector-Emitter Breakdown Voltage	IC = 5mA, IE = 0	30			V
Bvebo	Emitter-Base Breakdown Voltage	IE = 500uA, IC = 0	5			V
Icbo	Collector Cutoff Current	VCE = 30V, IE = 0			1	uA
Iebo	Emitter Cutoff Current	VEB = 3V, IC = 0			1	uA
Vce(sat)	Collector-Emitter Saturation Voltage	IC / IB = 2.0A / 0.2A			0.5	V
Vbe(sat)	Base-Emitter Saturation Voltage	IC / IB = 2.0A / 0.2A			2.0	
HFE	DC Current Gain	VCE = 2V, IC = 1.0A	60		400	
fT	Frequency	VCE = 5V, IC = 0.1A		90		MHz
Cob	Output Capacitance	VCE = 10V, f = 1MHz		45		pF

hFE Classification

Rank	R	O	Y	G
Range	60-120	100-200	160-320	200-400

5. Electrical Characteristics Curve

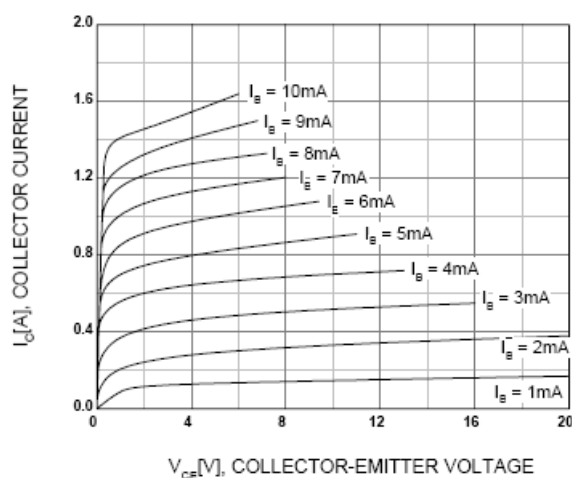


Figure 1. Static Characteristic

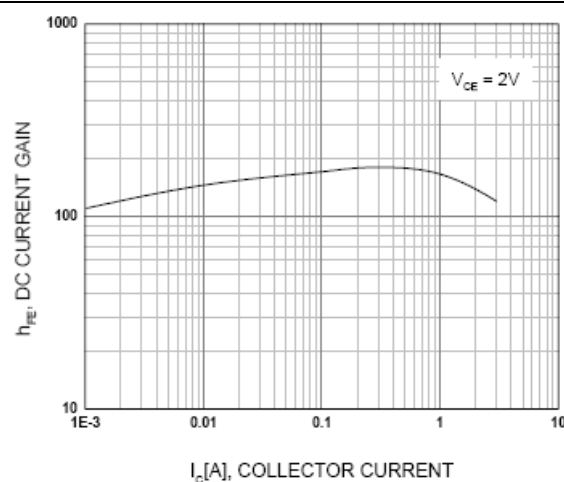


Figure 2. DC current Gain

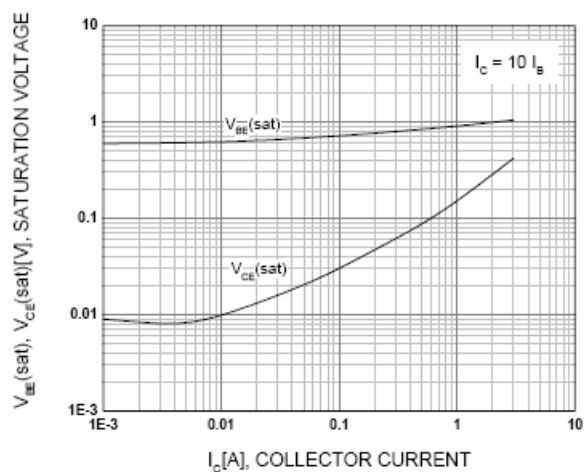
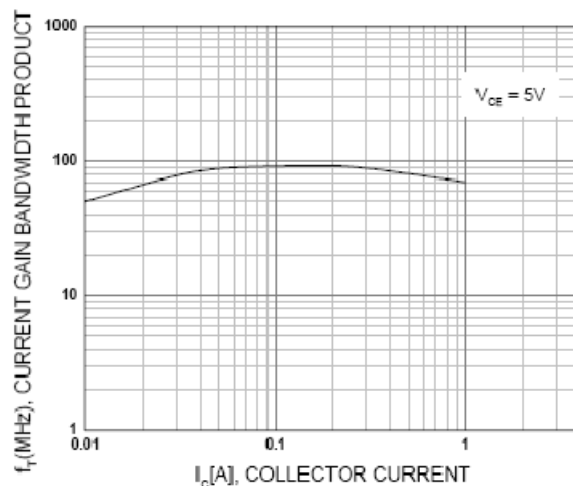
Figure 3. Base-Emitter Saturation Voltage
Collector-Emitter Saturation Voltage

Figure 4. Current Gain Bandwidth Product

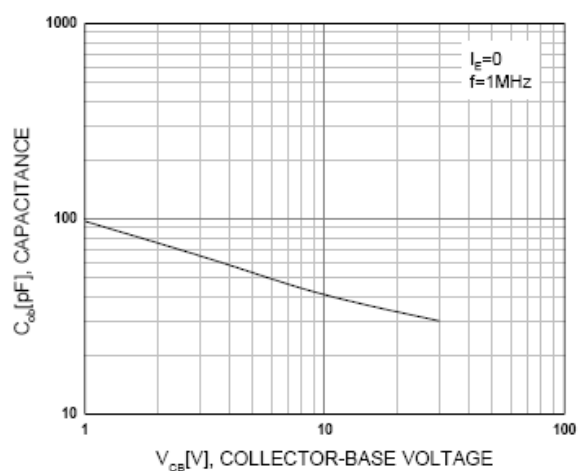


Figure 5. Collector Output Capacitance

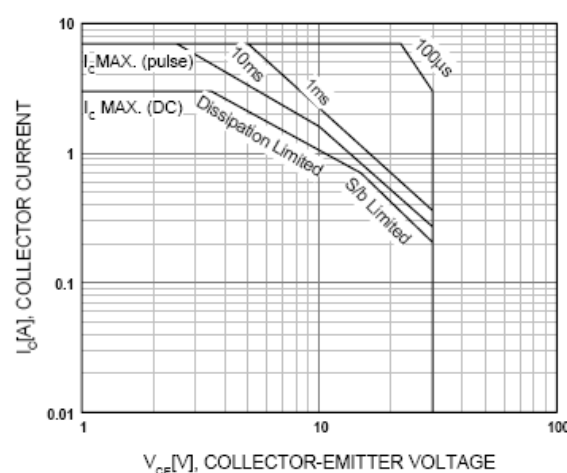


Figure 6. Safe Operating Area

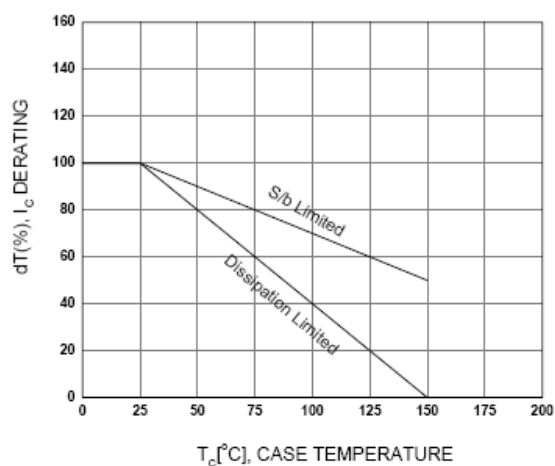


Figure 7. Derating Curve Of Safe Operating Areas

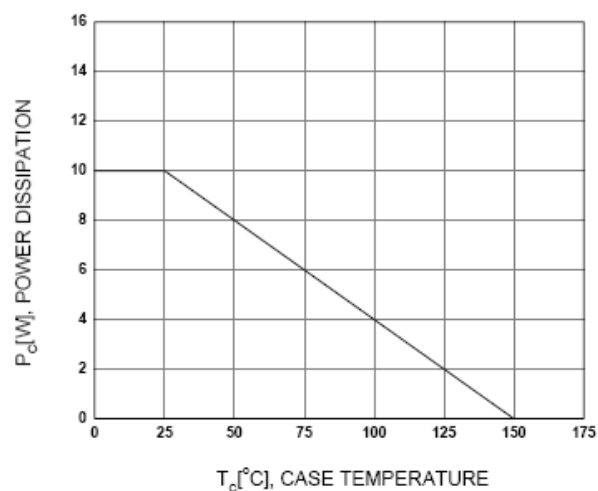
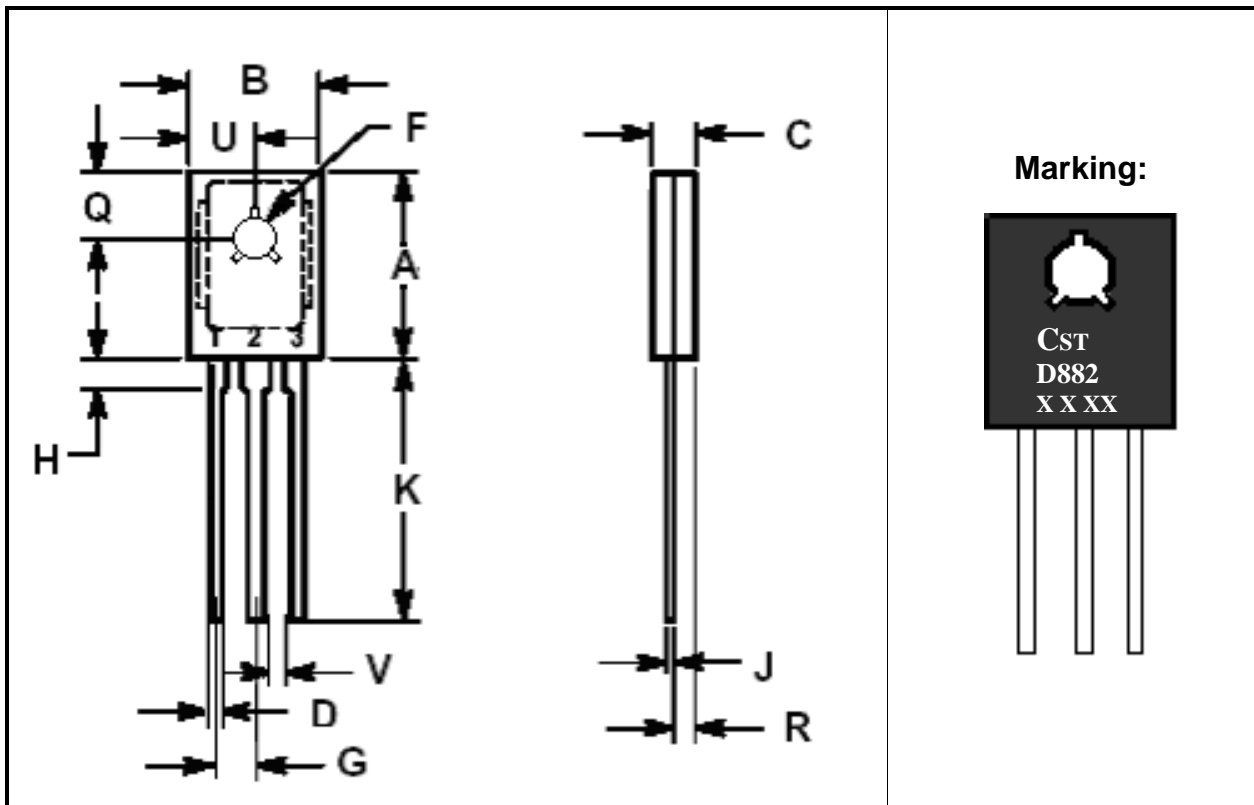


Figure 8. Power Derating

6、Package outline(TO-126)



DIM	Inches			Millimeters		
	Min	Type	Max	Min	Type	Max
A	0.419	-	0.429	10.65	-	10.89
B	0.284	-	0.312	7.22	-	7.92
C	0.091	0.100	0.109	2.30	2.54	2.76
K	0.520	-	0.598	13.20	-	15.20
D	0.025	0.029	0.031	0.64	0.73	0.80
J	0.011	-	0.020	0.28	-	0.52
G	0.087	0.091	0.094	2.20	2.30	2.40
V	0.040	-	-	1.02	-	-
F	0.115	0.122	0.130	2.93	3.10	3.30
U	0.142	-	0.157	3.60	-	4.00
Q	0.151	-	0.163	3.83	-	4.13
H	0.071	0.102	0.114	1.80	2.6	2.90
R	0.045	-	0.065	1.15	-	1.65