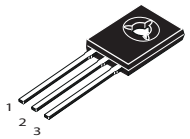
2SB776 PNP Epitaxial Planar Transistors
2SD886 NPN Epitaxial Planar Transistors

Lead(Pb)-Free

TO-126

1.EMITTER
2.COLLECTOR
3.BASE



ABSOLUTE MAXIMUM RATINGS (T_a=25°C)

Rating	Symbol	PNP/2SB776	NPN/2SD886	Unit
Collector-Emitter Voltage	V_{CEO}	-50	50	V
Collector-Base Voltage	V_{CBO}	-50	50	V
Emitter-Base Voltage	V_{EBO}	-5.0	5.0	V
Collector Current	I_C	-3.0	3.0	A
Total Cevice Disspation Ta=25°C	P_D	1.0		W
Junction Temperature	T_J	+150		
Storage Temperture	Tstg	-55 to +150		°C

Device Marking

2SB776=B776 , 2SD886=D886

ELECTORICAL CHARACTERISTICS

Characteristics	Symbol	Min	Max	Unit
Collect-Emitter Breakdown Voltage (I_C=-5/5 mA, I_B=0)	$V_{(BR)CEO}$	-50/50	-	V
Collect-Base Breakdown Voltage (I_C=-100/100 μA, I_E=0)	$V_{(BR)CBO}$	-50/50	-	V
Emitter-Base Breakdown Voltage (I_E=-100/100 μA, I_C=0)	$V_{(BR)EBO}$	-5.0/5.0	-	V
Collector Cutoff Current (V_{CB}=-50/50 V, I_E=0)	I_{CBO}	-	-1.0/1.0	μA
Emitter Cutoff Current (V_{EB}=-3.0/3.0Vdc, I_C=0)	I_{EBO}	-	-1.0/1.0	μA

ELECTRICAL CHARACTERISTICS (T_A=25˚C unless otherwise noted) (Countinued)

Characteristics	Symbol	Min	TYP	Max	Unit

ON CHARACTERISTICS

DC Current Gain* (I_C= -1.0/1.0 A, V_{CE}=-2.0/2.0V)	h_{FE} (1)	100	-	400	-
DC Current Gain* (I_C= -20/20 mA, V_{CE}= -2.0/2.0 V)	h_{FE} (2)	100	-	-	-
Collector-Emitter Saturation Voltage (I_C= -2.0/2.0 A , I_B= -0.2/0.2A)	$V_{CE(sat)}$	-	-	-0.5/0.5	V
Base-Emitter Saturation Voltage (I_C= -2.0/2.0 A , I_B= -0.2/0.2A)	$V_{BE(sat)}$	-	-	-2.0/2.0	V
Transition Frequency (I_C= -0.1/0.1 mA , V_{CE}=-5.0/5.0 V , f=10MHz)	f_T	-	80	-	MHz
Collector Output Capacitance (I_E=0, V_{CB}=10V, f=1MHz)	C_{ob}	-	45	-	pF

* Pulse Test

Typical Characteristics
2SB776

Fig.1 Static characteristics

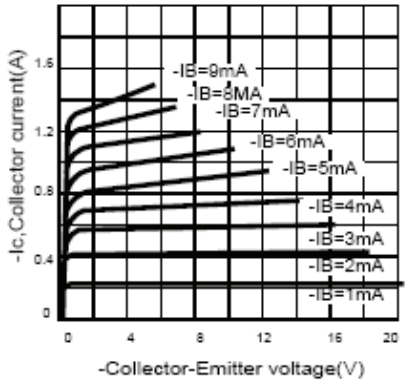


Fig.2 Derating curve of safe operating areas

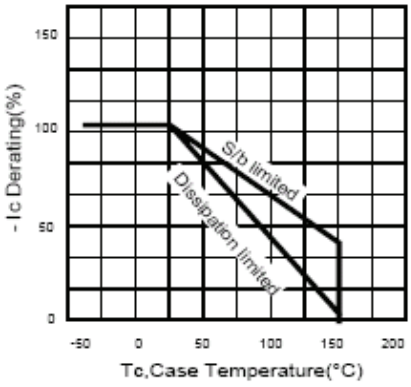


Fig.3 Power Derating

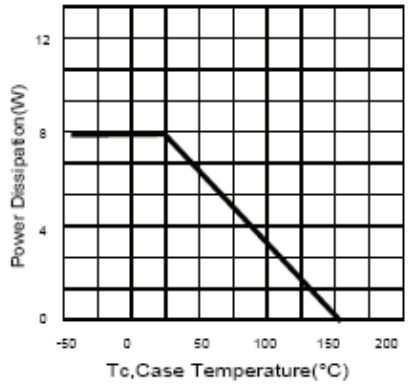


Fig.4 Collector Output capacitance

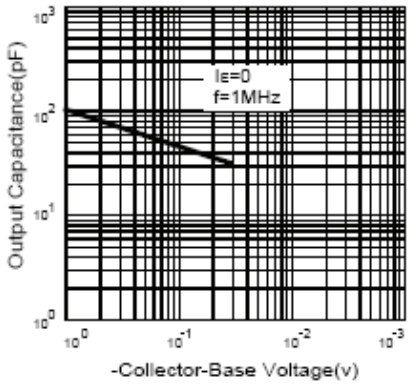


Fig.5 Current gain-bandwidth product

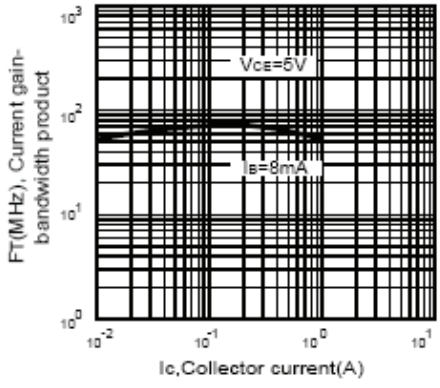


Fig.6 Safe operating area

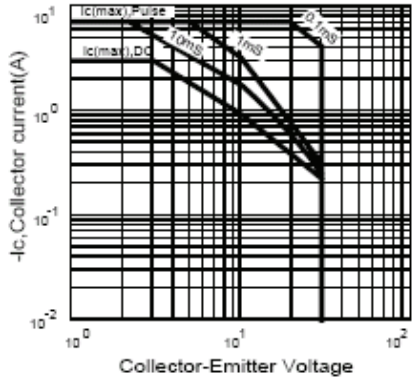


Fig.7 DC current gain

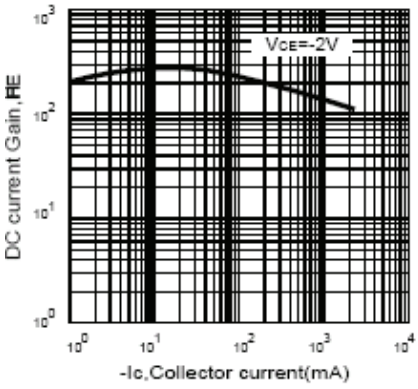
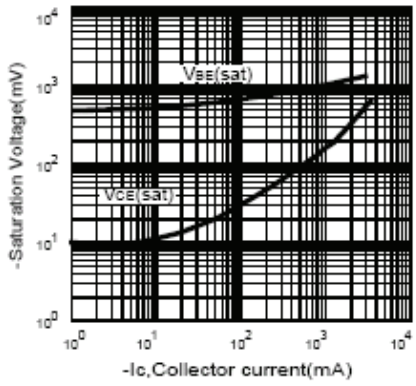


Fig.8 Saturation Voltage



Typical Characteristics
2SD886

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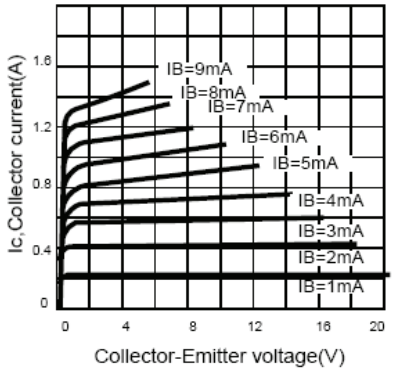

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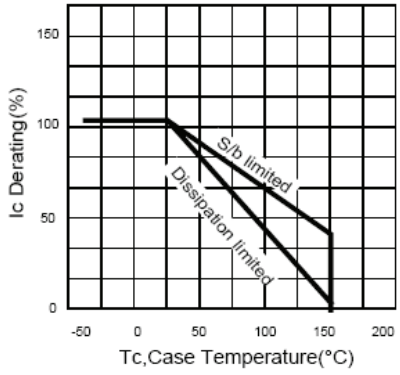


Fig.3 Power Derating

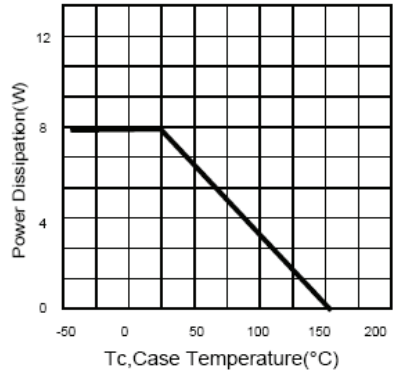


Fig.4 Collector Output capacitance

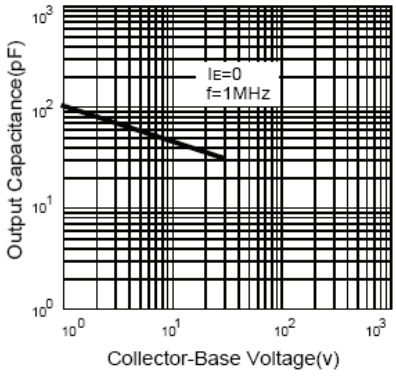


Fig.5 Current gain-bandwidth product

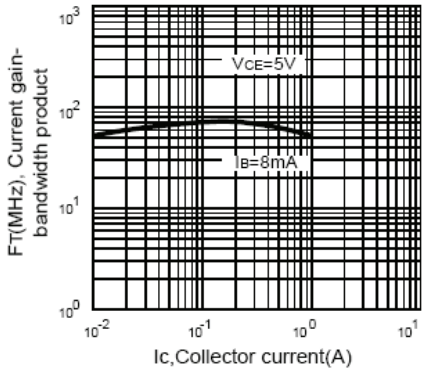
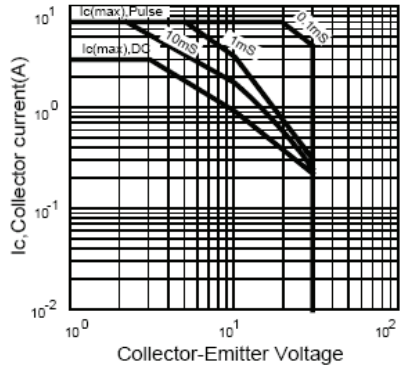


Fig.6 Safe operating area



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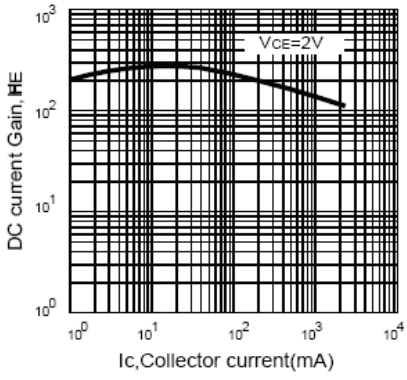

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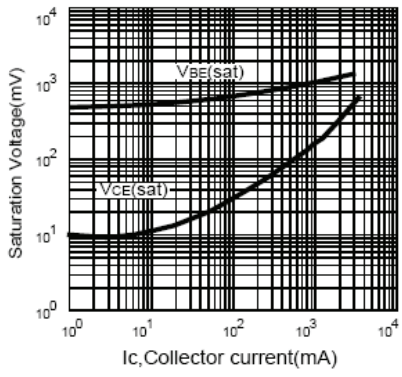
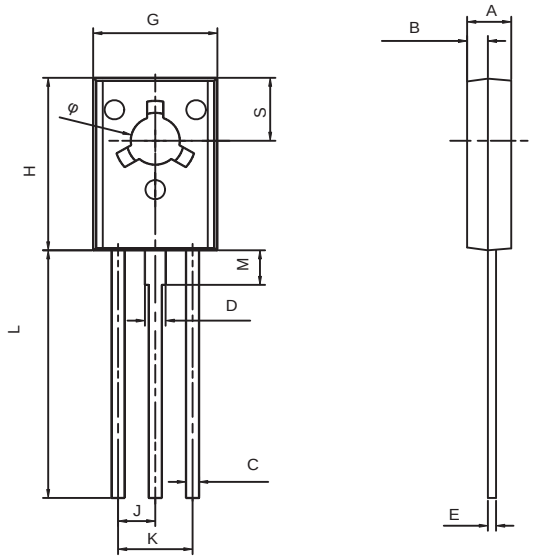


TO-126 Outline Dimensions

unit:mm



TO-126		
Dim	Min	MAX
A	2.500	2.900
B	1.100	1.500
C	0.660	0.860
D	1.170	1.370
E	0.450	0.600
G	7.400	7.800
H	10.600	11.000
J	2.290TYP	
K	4.480	4.680
L	15.300	15.700
M	2.100	2.300
S	3.900	4.100
φ	3.000	3.200