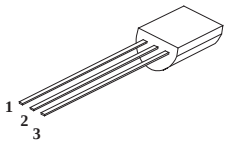
WEITRON

2SB985

PNP General Purpose Transistors

Lead(Pb)-Free



1.EMITTER
3.BASE
2.COLLECTOR

TO-92MOD

MAXIMUM RATINGS(Ta=25°C)

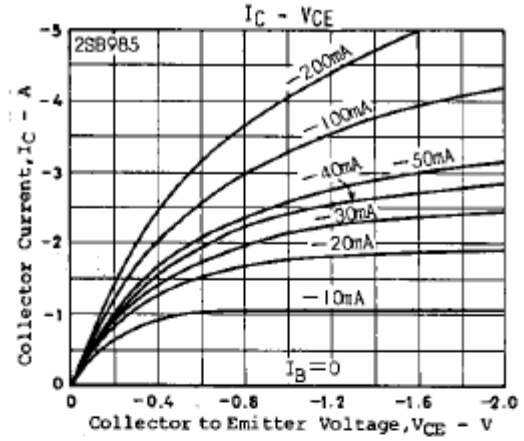
Rating	Symbol	Value	Unit
Collector-Emitter Voltage	V_{CEO}	-50	V
Collector-Base Voltage	V_{CBO}	-60	V
Emitter-Base Voltage	V_{EBO}	-6.0	V
Collector Current - Continuous	I_C	-3.0	mA
Total Device Dissipation T_A=25°C	P_D	0.9	mW
Junction Temperature	T_j	150	°C
Storage Temperature	T_{stg}	-55 to 150	°C

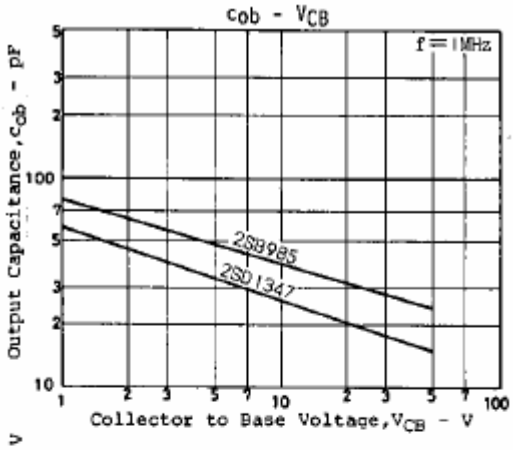
ELECTRICAL CHARACTERISTICS (Tamb=25℃ unless otherwise specified)

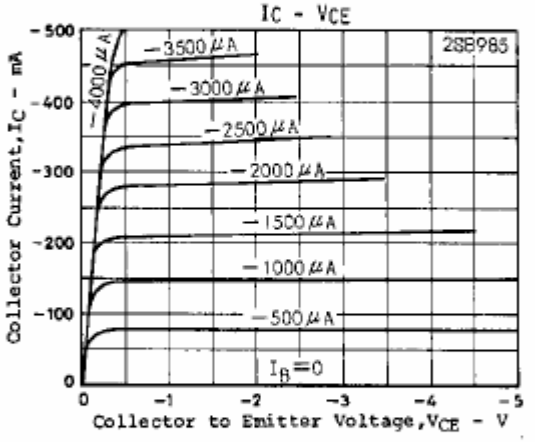
Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	I_C=-10μA, I_E=0	-60			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	I_C=-1mA, I_B=0	-50			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	I_E=-10μA, I_C=0	-6			V
Collector cut-off current	I_{CBO}	V_{CB}=-40V, I_E=0			-1	μA
Emitter cut-off current	I_{EBO}	V_{EB}=-4V, I_C=0			-1	μA
DC current gain	$h_{FE(1)}$	V_{CE}=-2V, I_C=-100mA	100		560	
	$h_{FE(2)}$	V_{CE}=-2V, I_C=-3A	40			
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C=-2A, I_B=-100mA			-0.7	V
Base-emitter saturation voltage	$V_{BE(sat)}$	I_C=-2A, I_B=-100mA			-1.2	V
Transition frequency	f_T	V_{CE}=-10V, I_C=-50mA		150		MHz
Collector output capacitance	C_{ob}	V_{CB}=-10V, I_E=0, f=1MHz		39		pF

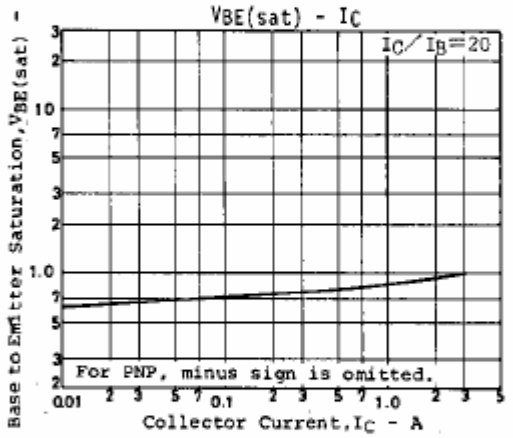
CLASSIFICATION OF $h_{FE(1)}$

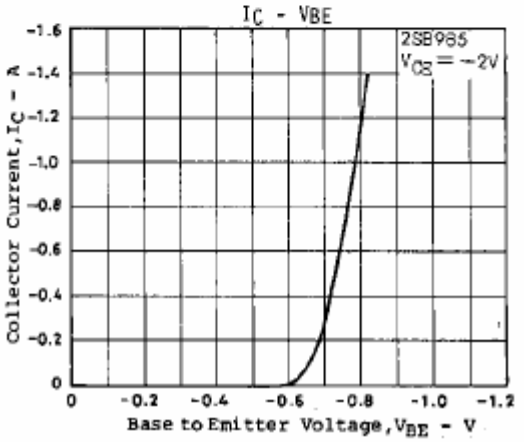
Rank	**R**	**S**	**T**	**U**
Range	100-200	140-280	200-400	280-560

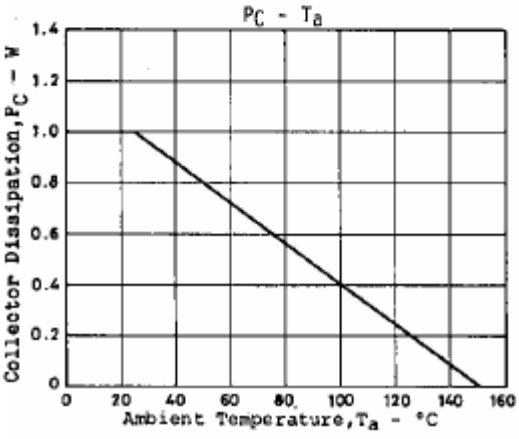

IC - VCE
2SB985
-200mA
-100mA
-50mA
-40mA
-30mA
-20mA
-10mA
IB=0
Collector Current, IC - A
Collector to Emitter Voltage, VCE - V

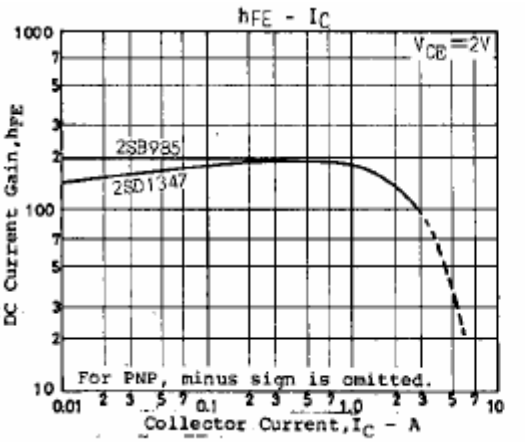

Cob - VCB
f=1MHz
2SB985
2SD1347
Output Capacitance, Cob - pF
Collector to Base Voltage, VCB - V

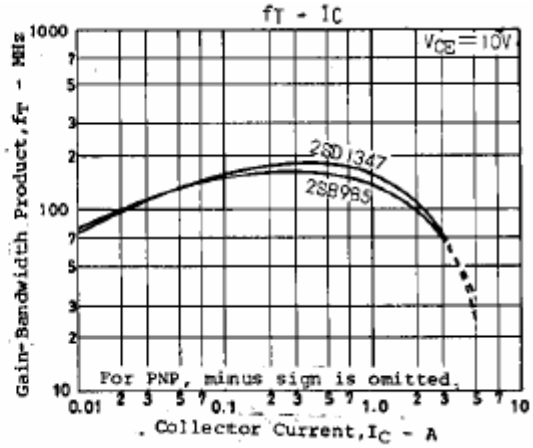

IC - VCE
2SB985
-4000μA
-3500μA
-3000μA
-2500μA
-2000μA
-1500μA
-1000μA
-500μA
IB=0
Collector Current, IC - mA
Collector to Emitter Voltage, VCE - V

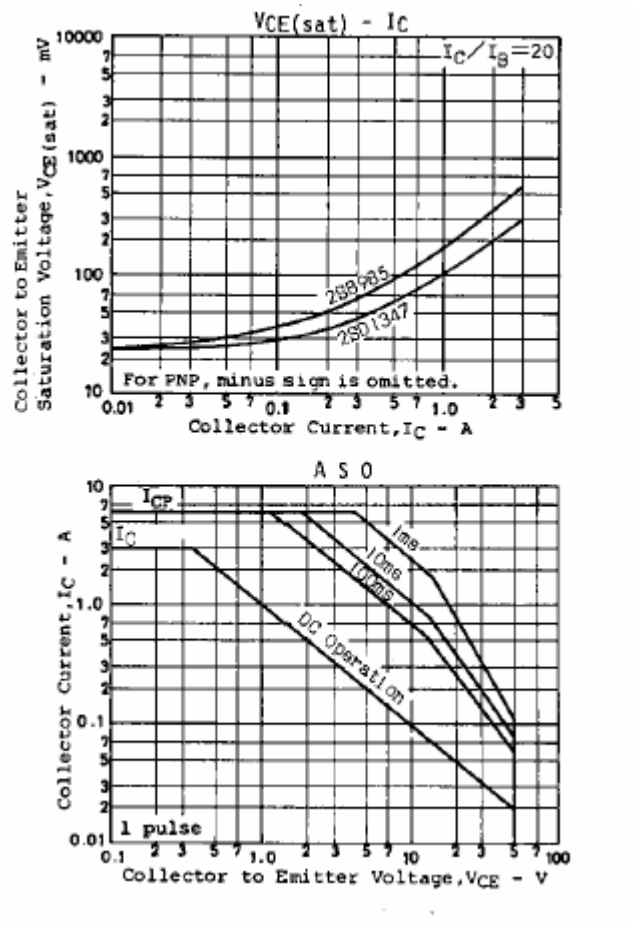

VBE(sat) - IC
IC/IB=20
For PNP, minus sign is omitted.
Base to Emitter Saturation, VBE(sat) - V
Collector Current, IC - A


IC - VBE
2SB985
VCE=-2V
Collector Current, IC - A
Base to Emitter Voltage, VBE - V


PC - Ta
Collector Dissipation, PC - W
Ambient Temperature, Ta - °C

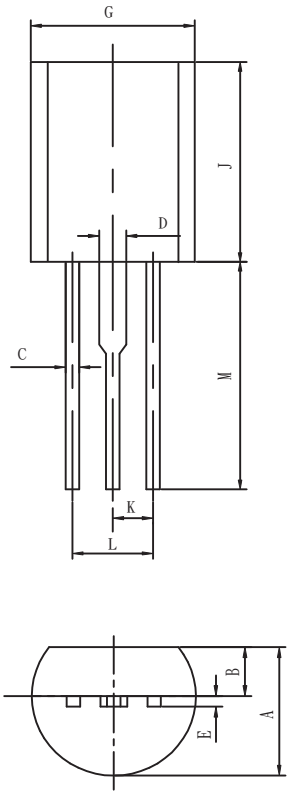

hFE - IC
VCE=2V
2SB985
2SD1347
For PNP, minus sign is omitted.
DC Current Gain, hFE
Collector Current, IC - A


fT - IC
VCE=10V
2SD1347
2SB985
For PNP, minus sign is omitted.
Gain-Bandwidth Product, fT - MHz
Collector Current, IC - A


VCE(sat) - IC
IC/IB=20
Collector to Emitter Saturation Voltage,VCE(sat) - mV
2SB985
2SD1347
For PNP, minus sign is omitted.
Collector Current,IC - A
A S O
ICP
IC
1ms
10ms
100ms
DC Operation
1 pulse
Collector Current,IC - A
Collector to Emitter Voltage,VCE - V

TO-92MOD Outline Dimensions

unit:mm



TO-92MOD		
Dim	Min	Max
A	4.70	5.10
B	1.73	2.03
C	0.40	0.60
D	0.90	1.10
E	0.40	0.50
G	5.80	6.20
J	8.40	8.80
K	1.50Typ	
L	2.90	3.10
M	12.20	13.45