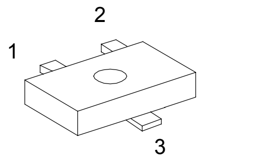
LOW FREQUENCY PNP TRANSISTOR

DESCRIPTION

The UTC 2SB1198 is an epitaxial planar type PNP silicon transistor.

FEATURES

*High breakdown voltage : BV_{CEO}= -80V
*Low V_{CE}(sat) : V_{CE}(sat)= -0.2V (Typ)
(I_C/I_B = -0.5A/-50mA)



1:EMITTER 2:BASE 3: COLLECTOR

ABSOLUTE MAXIMUM RATINGS (Ta=25°C)

PARAMETER	SYMBOL	LIMITS	UNIT
Collector-Base Voltage	V_{CBO}	-80	V
Collector-Emitter Voltage	V_{CEO}	-80	V
Emitter-Base Voltage	V_{EBO}	-5	V
Collector Current	I_C	-0.5	A
Collector Power Dissipation	P_C	0.2	W
Junction Temperature	T_j	150	°C
Storage Temperature	T_{STG}	-55 ~ +150	°C

ELECTRICAL CHARACTERISTICS(Ta=25°C,unless otherwise specified)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Collector Base Breakdown Voltage	BV_{CBO}	I_C= -50 μA	-80			V
Collector Emitter Breakdown Voltage	BV_{CEO}	I_C= -2mA	-80			V
Emitter Base Breakdown Voltage	BV_{EBO}	I_E= -50 μA	-5			V
Collector Cut-Off Current	I_{CBO}	V_{CB}= -50V			-0.5	μA
Emitter Cut-Off Current	I_{EBO}	V_{EB}= -4V			-0.5	μA
Collector-Emitter Saturation Voltage	V_{CE}(sat)	I_C/I_B= -0.5A/-50mA		-0.2	-0.5	V
DC Current Transfer Ratio	h_{FE}	V_{CE}= -3V,I_C= -0.1A	120		390	
Transition Frequency	f_T	V_{CE}=-10V,I_E= 50 mA, f=100MHz		180		MHz
Output Capacitance	Cob	V_{CB}= -10V, I_E= 0 A, f=1MHz		11		pF

CLASSIFICATION OF hFE

RANK	Q	R
RANGE	120-270	180-390
MARKING	AKQ	AKR

ELECTRICAL CHARACTERISTICS CURVES

Figure 1.Grounded Emitter PropagationCharacteristics

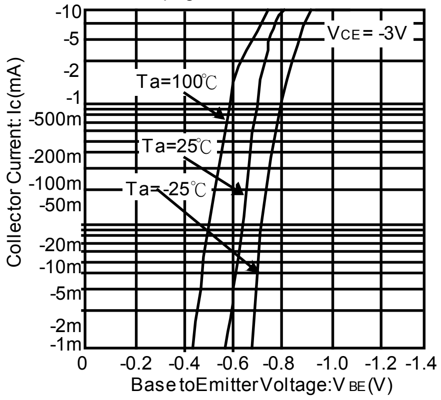


Figure 2.Grounded Emitter OutputCharacteristics

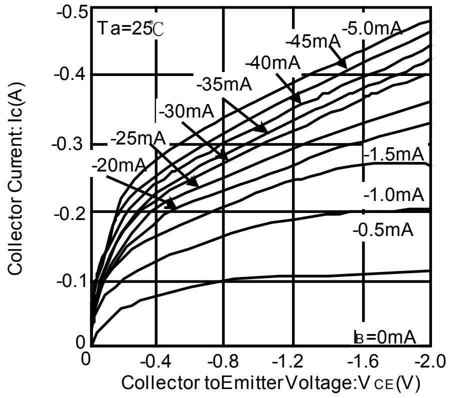


Figure 3.DC Current Gain vs.Collector Current

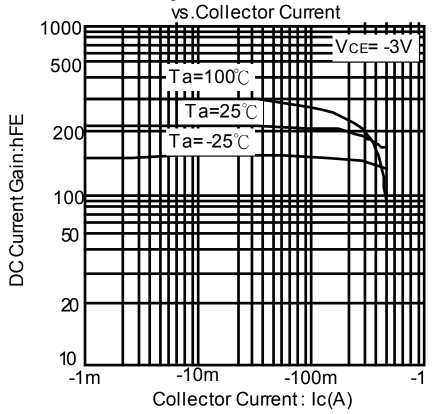


Figure4.Collector-emitter Saturation Voltage vs.Collector Current (I)

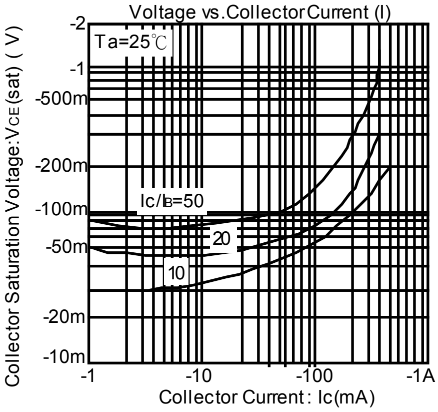


Figure5.Collector-emitter Saturation Voltage vs.Collector Current (II)

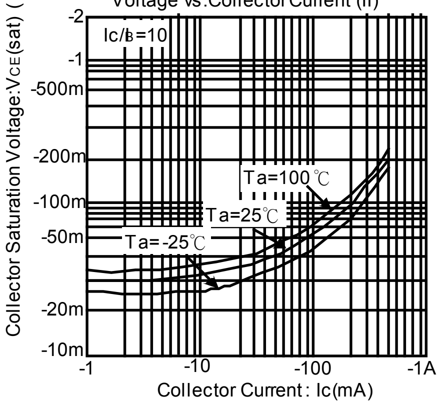


Figure6.Collector-emitter Saturation Voltage vs.Collector Current (III)

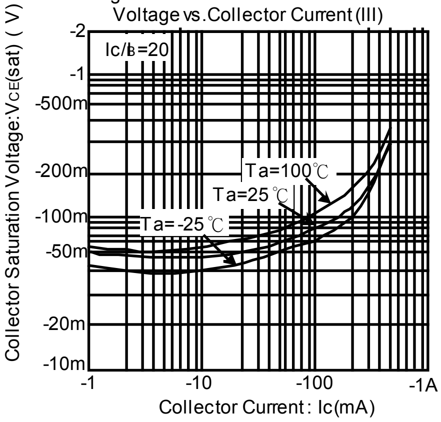


Figure 7.Collector-emitter Saturation Voltage vs.Collector Current (IV)

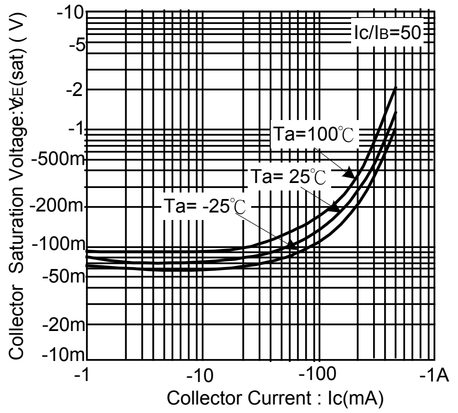


Figure 8. Gain Bandwidth Product vs.Emitter Current

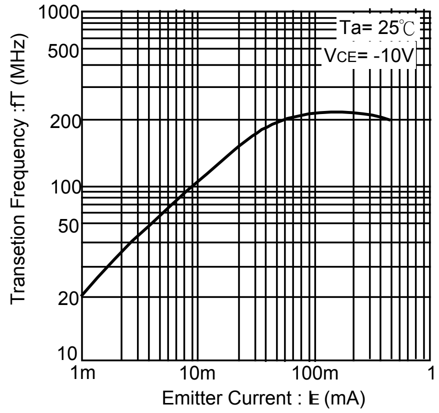
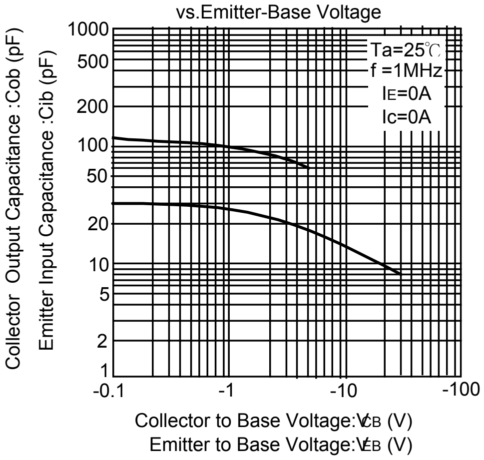


Figure9.Collector Output Capacitance vs.Collector-Base Voltage Emitter Input Capacitance vs.Emitter-Base Voltage



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