

UTC2SB1198

PNP EPITAXIAL SILICON TRANSISTOR

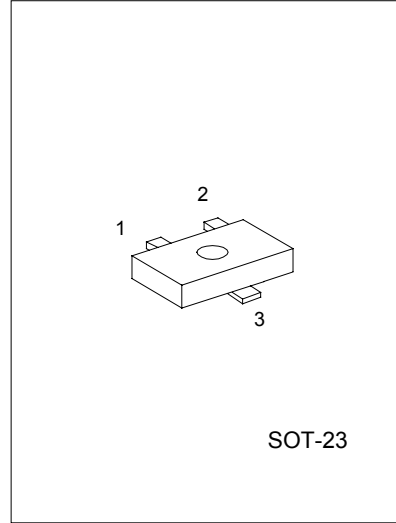
LOW FREQUENCY PNP TRANSISTOR

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)
($I_C/I_B = -0.5A/-50mA$)



SOT-23

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}	$I_C = -50 \mu A$	-80			V
Collector Emitter Breakdown Voltage	BV_{CEO}	$I_C = -2mA$	-80			V
Emitter Base Breakdown Voltage	BV_{EBO}	$I_E = -50 \mu A$	-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	C_{ob}	$V_{CB} = -10V, I_E = 0 A, f = 1MHz$		11		pF

CLASSIFICATION OF hFE

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

UTC UNISONIC TECHNOLOGIES CO. LTD

ELECTRICAL CHARACTERISTICS CURVES

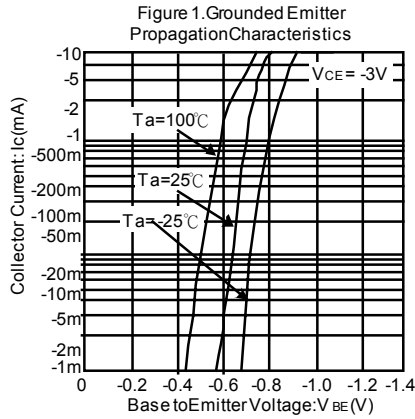


Figure 1. Grounded Emitter Propagation Characteristics

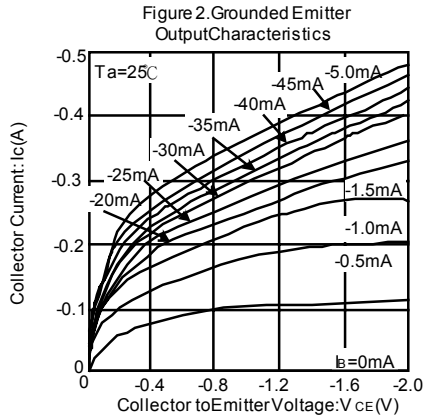


Figure 2. Grounded Emitter Output Characteristics

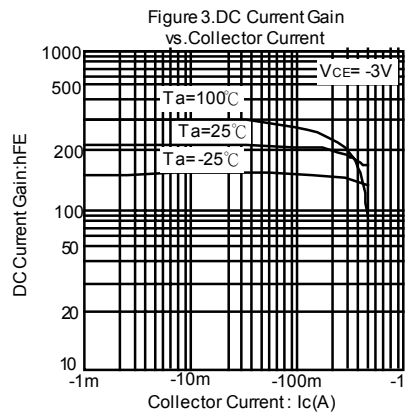


Figure 3. DC Current Gain vs. Collector Current

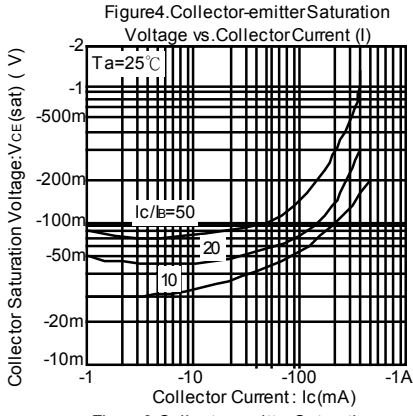


Figure 4. Collector-emitter Saturation Voltage vs. Collector Current (I)

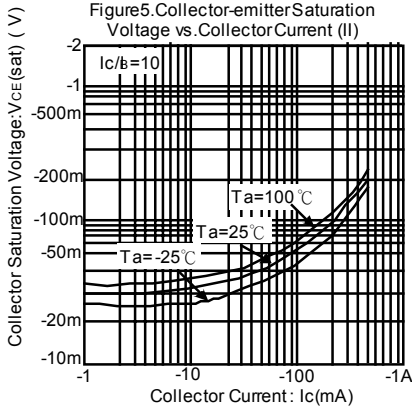


Figure 5. Collector-emitter Saturation Voltage vs. Collector Current (II)

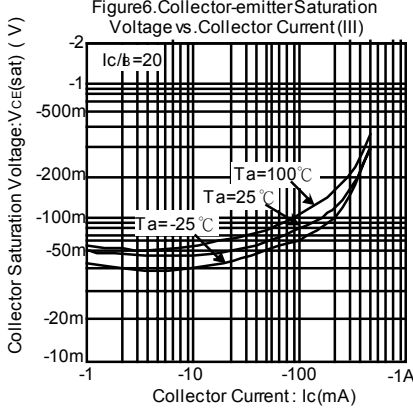


Figure 6. Collector-emitter Saturation Voltage vs. Collector Current (III)

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

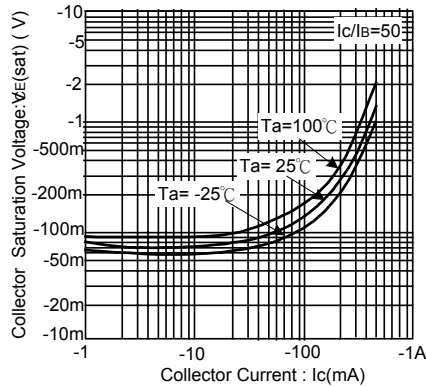


Figure 8. Gain Bandwidth Product vs. Emitter Current

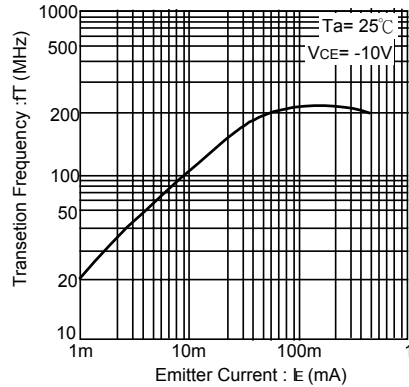
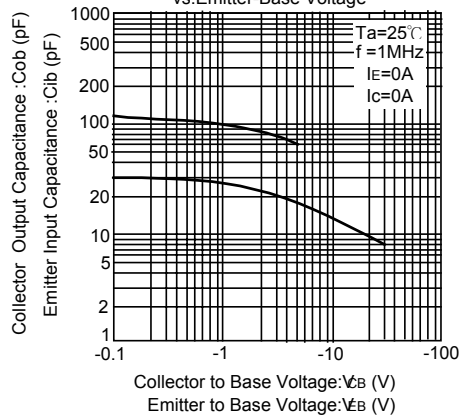


Figure 9. Collector Output Capacitance vs. Collector-Base Voltage
Emitter Input Capacitance vs. Emitter-Base Voltage



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