

UTC 2SB1116/A PNP EPITAXIAL SILICON TRANSISTOR

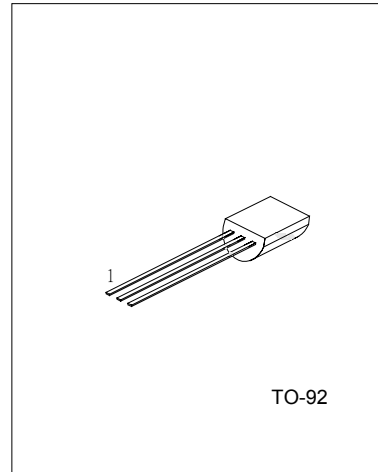
PNP EPITAXIAL SILICON TRANSISTOR

DESCRIPTION

* Complement to 2SD1616/A

APPLICATIONS

- * Audio Frequency Power Amplifier
- * Medium Speed Switching



1: Emitter 2: Collector 3: Base

ABSOLUTE MAXIMUM RATINGS (Ta=25°C)

PARAMETER	SYMBOL	RATINGS	UNIT
Collector-Base Voltage	V _{CBO}	-60	V
2SB1116 2SB1116A		-80	
Collector-Emitter Voltage	V _{CEO}	-50	V
2SB1116 2SB1116A		-60	
Emitter-Base Voltage	V _{EBO}	-6	V
Collector Current (DC)	I _c	-1	A
Collector Current (Pulse)*	I _{cp}	-2	A
Collector Power Dissipation	P _c	0.75	W
Junction Temperature	T _j	150	°C
Storage Temperature	T _{stg}	-55 ~ +150	°C

*PW ≤ 10ms, Duty Cycle ≤ 50%

ELECTRICAL CHARACTERISTICS (Ta=25°C)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Collector Cut-off Current	I _{CBO}	V _{CB} =-60V, I _E =0			-100	nA
Emitter Cut-off current	I _{EBO}	V _{EB} =-6V, I _C =0			-100	nA
DC Current Gain*	h _{FE1}	V _{CE} =-2V, I _C =-100mA	135		600	
			135		400	
	h _{FE2}	V _{CE} =-2V, I _C =-1A	81			
Base-Emitter On Voltage*	V _{BE(on)}	V _{CE} =-2V, I _C =-50mA	-600	-650	-700	mV
Collector-Emitter Saturation Voltage*	V _{CE(sat)}	I _C =-1A, I _B =-50mA		-0.2	-0.3	V
Base-Emitter Saturation Voltage*	V _{BE(sat)}	I _C =-1A, I _B =-50mA		-0.9	-1.2	V
Output Capacitance	C _{ob}	V _{CB} =-10V, I _E =0, f=1MHz		25		pF
Current Gain Bandwidth Product	f _T	V _{CE} =-2V, I _C =-100mA	70	120		MHz
Turn On Time	t _{ON}	V _{CC} =-10V, I _C =-100mA		0.07		μs
Storage Time	t _{STG}	I _{B1} =-I _{B2} =-10mA		0.7		μs
Fall Time	t _F	V _{BE(off)} =2 ~ 3V		0.07		μs

*Pulse Test: PW ≤ 350μs, Duty Cycle ≤ 2%

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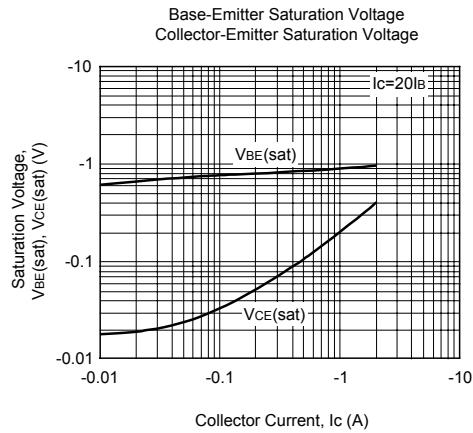
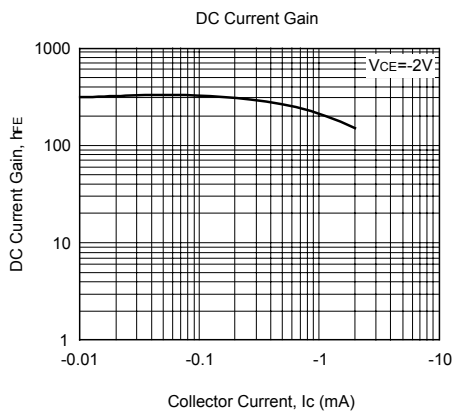
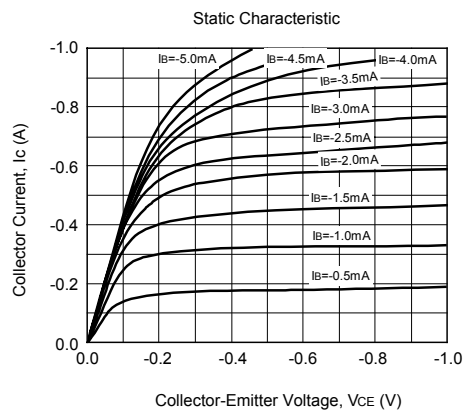
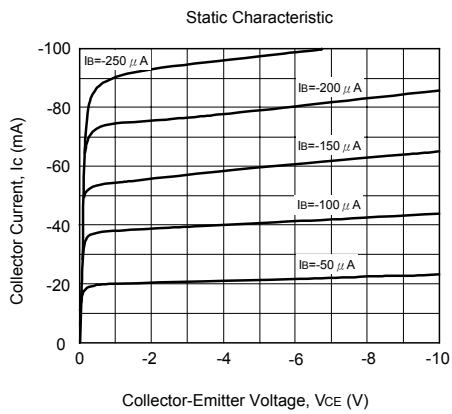
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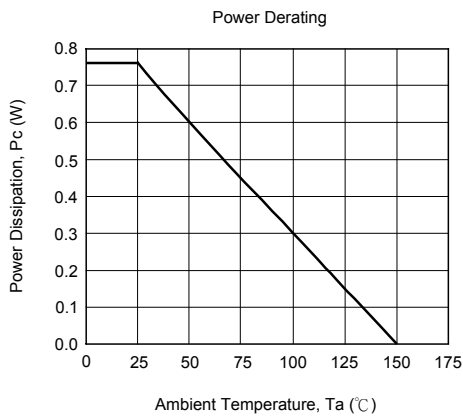
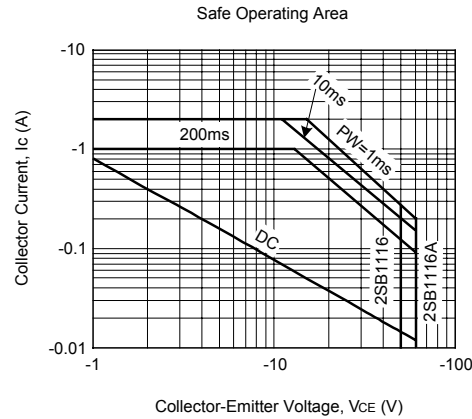
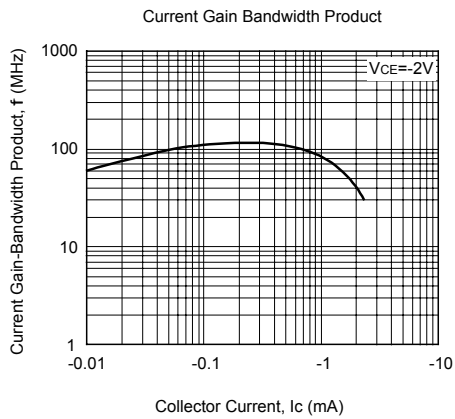
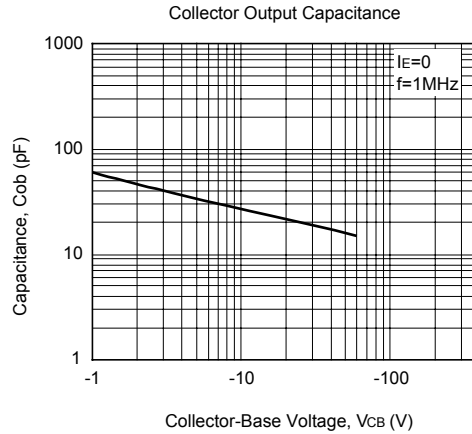
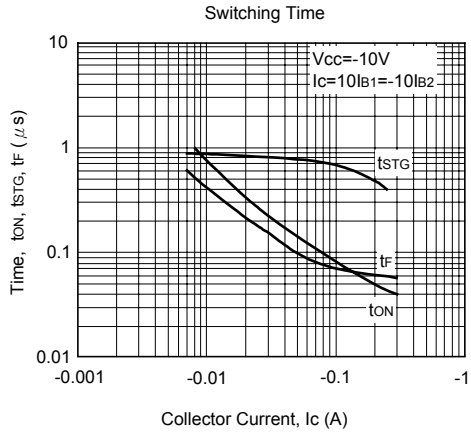
CLASSIFICATION of h_{FE1}

RANK	Y	G	L
h_{FE1}	135 ~ 270	200 ~ 400	300 ~ 600

TYPICAL CHARACTERISTICS



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