

RT1A3906-T122

FOR LOW FREQUENCY AMPLIFY APPLICATION
SILICON PNP EPITAXIAL TYPE(mini type)

DESCRIPTION

RT1A3906 is a super mini package resin sealed silicon PNP epitaxial transistor, It is designed for low frequency voltage application.

FEATURE

- Excellent linearity of DC forward gain.
 - Super mini package for easy mounting
 - Small collector to emitter saturation voltage.
- $V_{CE(sat)} = -0.4V_{max}$ ($I_C = -50mA, I_B = -5mA$)

APPLICATION

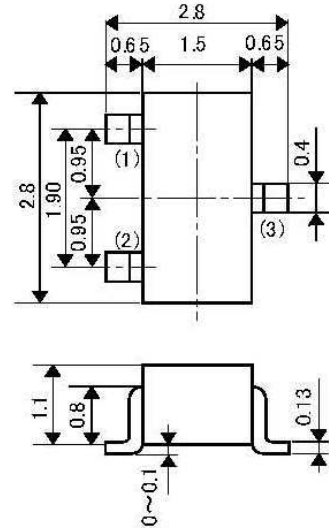
For Hybrid IC, small type machine low frequency voltage Amplify application.

MAXIMUM RATINGS (Ta=25°C)

Symbol	Parameter	Ratings	Unit
V_{CBO}	Collector to Base voltage	-60	V
V_{CEO}	Collector to Emitter voltage	-40	V
V_{EBO}	Emitter to Base voltage	-6	V
I_C	Collector current	200	mA
P_c	Collector dissipation	150	mW
T_j	Junction temperature	+150	°C
T_{stg}	Storage temperature	-55 ~ +150	°C

OUTLINEDRAWING

unit : mm



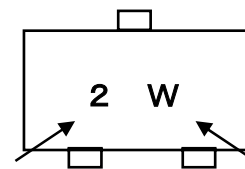
Terminal connection

- ①: Base
- ②: Emitter
- ③: Collector

JEITA: SC-59

JEDEC : TO-236resemble

Marking Figure



Abbreviation
for Kind

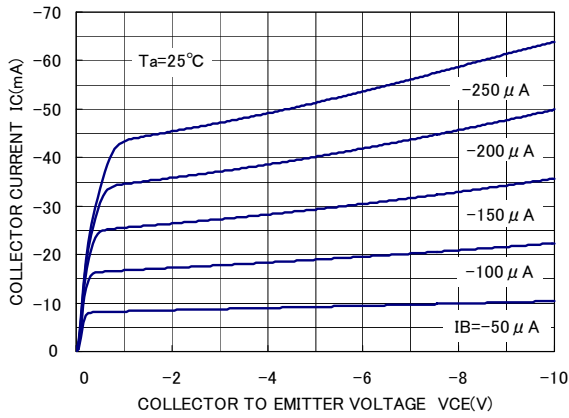
hFE Item

ELECTRICAL CHARACTERISTICS (Ta=25°C)

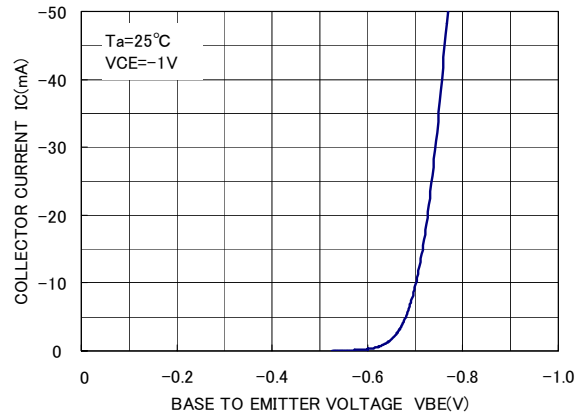
Symbol	Parameter	Test conditions	Limits			Unit
			Min	Min	Min	
$V_{(BR)CEO}$	C to E break down voltage	$I_C = -1mA, R_{BE} = \infty$	-40			V
$V_{(BR)CBO}$	C to B break down voltage	$I_C = -10\mu A, I_E = 0$	-60			V
$V_{(BR)EBO}$	E to B break down voltage	$I_E = -10\mu A, I_C = 0$	-6			V
I_{BL}	Base cut off current	$V_{CE} = -30V, V_{EB} = -3V$			-50	nA
I_{CEX}	Collector cut off current	$V_{CE} = -30V, V_{EB} = -3V$			-50	nA
hFE	DC forward current gain	$V_{CE} = -1V, I_C = -10mA$	100		300	
$V_{CE(sat)}$	C to E Saturation Voltage	$I_C = -50mA, I_B = -5mA$	-		-400	mV
$V_{BE(sat)}$	B to E Saturation Voltage	$I_C = -50mA, I_B = -5mA$	-		-950	mV
fT	Gain bandwidth product	$V_{CE} = -20V, I_C = -10mA, f = 100MHz$	250		-	MHz
C_{ob}	Collector output capacitance	$V_{CB} = -5V, I_E = 0, f = 1MHz$	-		5.0	pF

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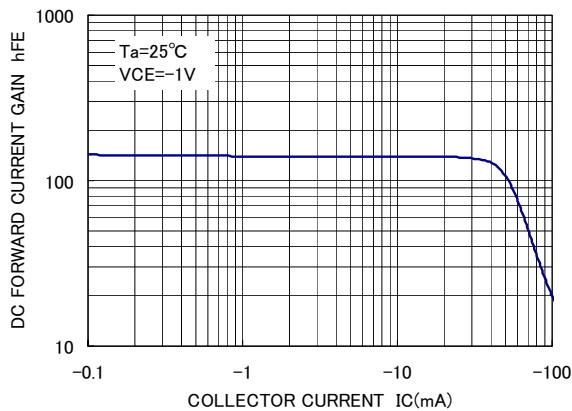
COMMON EMITTER OUTPUT



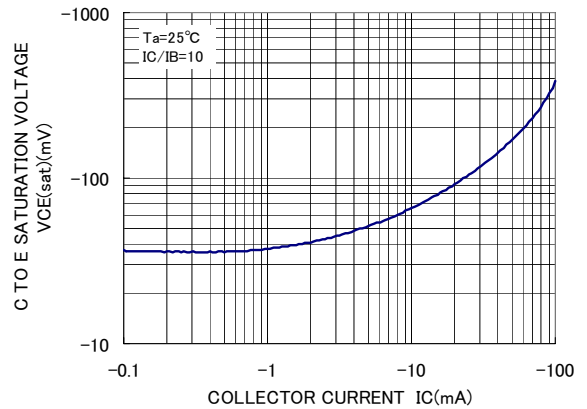
COMMON EMITTER TRANSFER



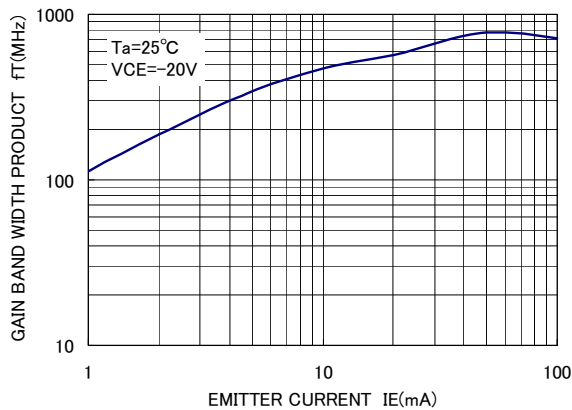
DC FORWARD CURRENT GAIN VS. COLLECTOR CURRENT



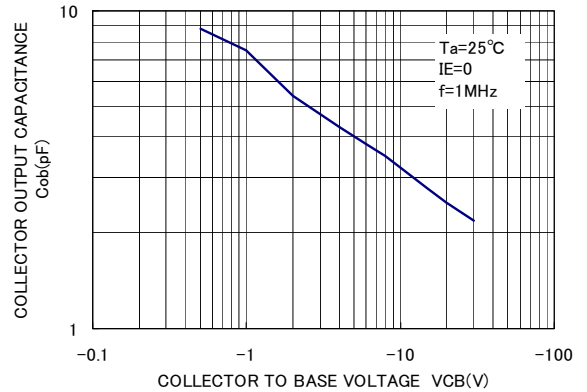
COLLECTOR EMITTER SATURATION VOLTAGE VS. COLLECTOR CURRENT



GAIN BAND WIDTH PRODUCT VS. EMITTER CURRENT



COLLECTOR OUTPUT CAPACITANCE VS. COLLECTOR TO BASE VOLTAGE





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