To our customers,

Old Company Name in Catalogs and Other Documents

On April 1st, 2010, NEC Electronics Corporation merged with Renesas Technology Corporation, and Renesas Electronics Corporation took over all the business of both companies. Therefore, although the old company name remains in this document, it is a valid Renesas Electronics document. We appreciate your understanding.

Renesas Electronics website: http://www.renesas.com

April 1st, 2010
Renesas Electronics Corporation

Issued by: Renesas Electronics Corporation (http://www.renesas.com)

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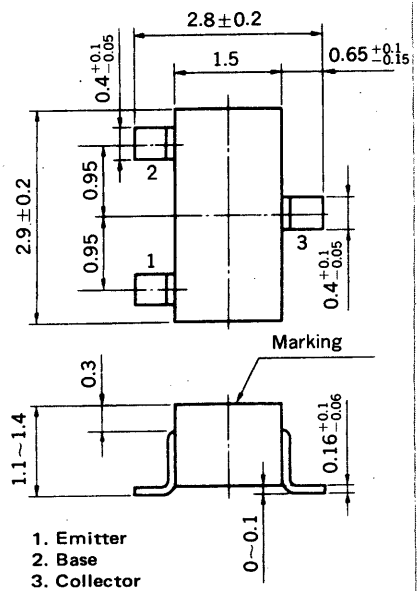
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RENESAS

SILICON TRANSISTOR
2SC1622A

AUDIO FREQUENCY HIGH GAIN AMPLIFIER
NPN SILICON EPITAXIAL TRANSISTOR
MINI MOLD

PACKAGE DIMENSIONS
in millimeters



1. Emitter
2. Base
3. Collector

FEATURE

- High DC Current Gain: h_{FE} = 600 TYP. (V_{CE} = 6.0 V, I_C = 1.0 mA)

ABSOLUTE MAXIMUM RATINGS

Maximum Voltages and Current (T_a = 25 °C)			
Collector to Base Voltage	V_{CBO}	120	V
Collector to Emitter Voltage	V_{CEO}	120	V
Emitter to Base Voltage	V_{EBO}	5.0	V
Collector Current (DC)	I_C	50	mA
Maximum Power Dissipation			
Total Power Dissipation at 25 °C Ambient Temperature	P_T	200	mW
Maximum Temperatures			
Junction Temperature	T_j	150	°C
Storage Temperature Range	T_{stg}	−55 to +150	°C

ELECTRICAL CHARACTERISTICS (T_a = 25 °C)

CHARACTERISTIC	SYMBOL	MIN.	TYP.	MAX.	UNIT	TEST CONDITIONS
Collector Cutoff Current	I_{CBO}			0.05	μA	V_{CB} = 120 V, I_E = 0
Emitter Cutoff Current	I_{EBO}			0.05	μA	V_{EB} = 5.0 V, I_C = 0
DC Current Gain	h_{FE1}	100				V_{CE} = 6.0 V, I_C = 0.1 mA
DC Current Gain	h_{FE2}	135	500	900		V_{CE} = 6.0 V, I_C = 1.0 mA*
Collector Saturation Voltage	$V_{CE(sat)}$		0.07	0.30	V	I_C = 10 mA, I_B = 1.0 mA
Base to Emitter Voltage	V_{BE}	0.55	0.58	0.65	V	V_{CE} = 6.0 V, I_C = 1.0 mA
Gain Bandwidth Product	f_T	50	110		MHz	V_{CE} = 6.0 V, I_E = −1.0 mA
Output Capacitance	C_{ob}		1.6	2.5	pF	V_{CB} = 30 V, I_E = 0, f = 1.0 MHz

* Pulsed: PW ≦ 350 μs, Duty Cycle ≦ 2 %

h_{FE} Classification

Marking	D15	D16	D17	D18
h_{FE2}	135 to 270	200 to 400	300 to 600	450 to 900

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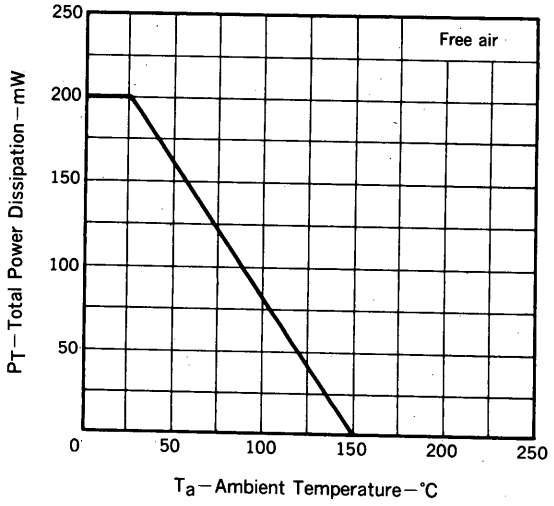
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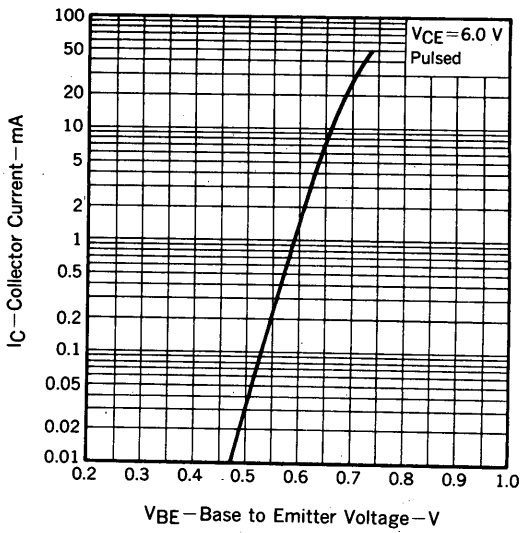
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TYPICAL CHARACTERISTICS (T_a = 25 °C)

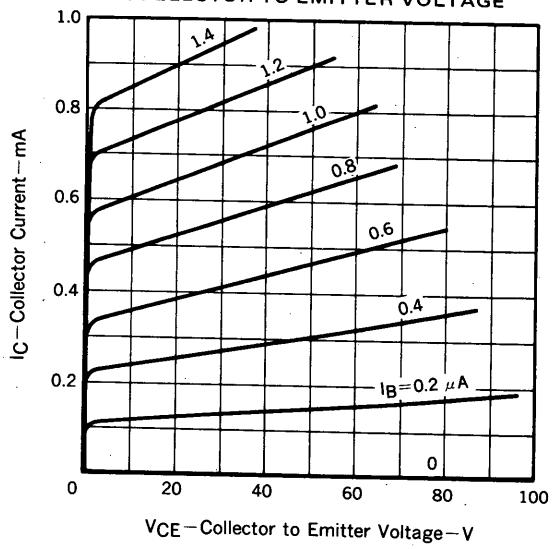
TOTAL POWER DISSIPATION vs. AMBIENT TEMPERATURE



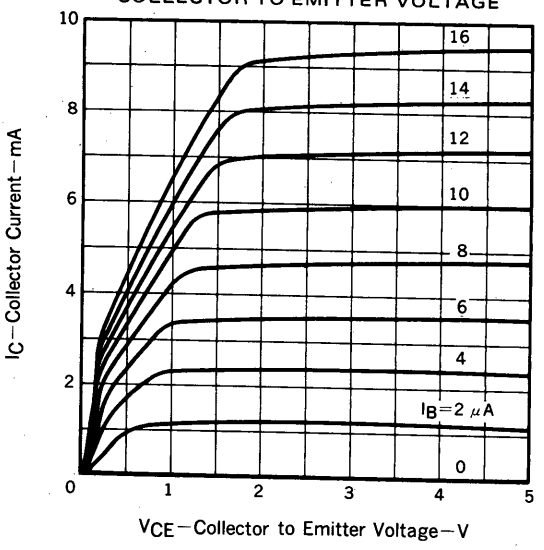
COLLECTOR CURRENT vs. BASE TO EMITTER VOLTAGE



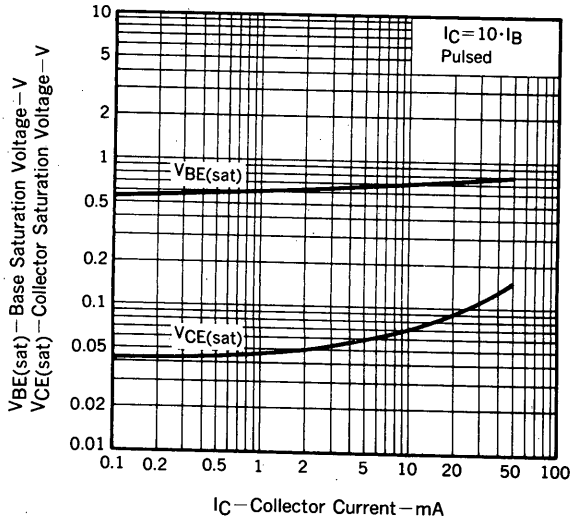
COLLECTOR CURRENT vs. COLLECTOR TO EMITTER VOLTAGE



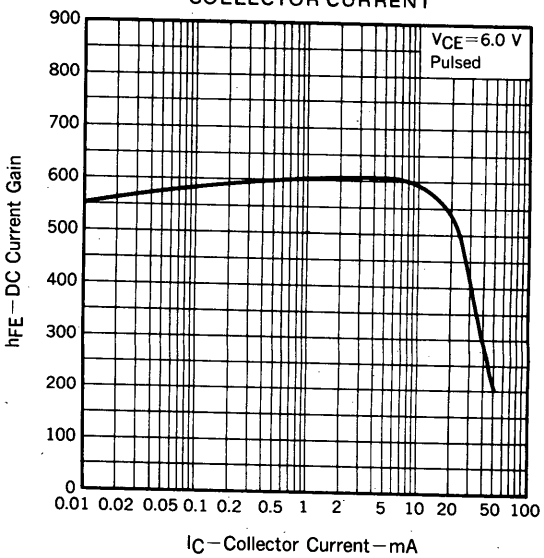
COLLECTOR CURRENT vs. COLLECTOR TO EMITTER VOLTAGE



BASE AND COLLECTOR SATURATION VOLTAGE vs. COLLECTOR CURRENT

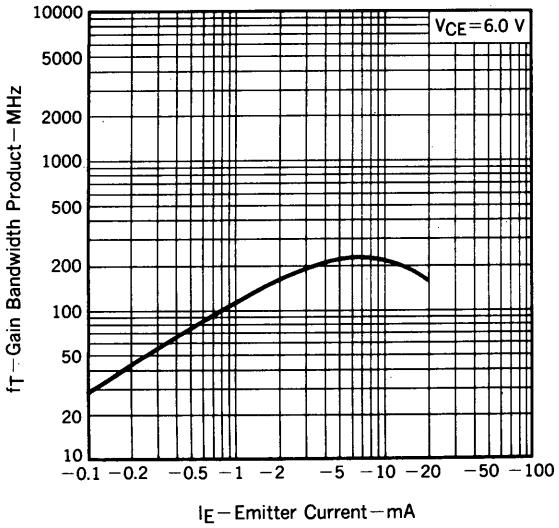


DC CURRENT GAIN vs. COLLECTOR CURRENT

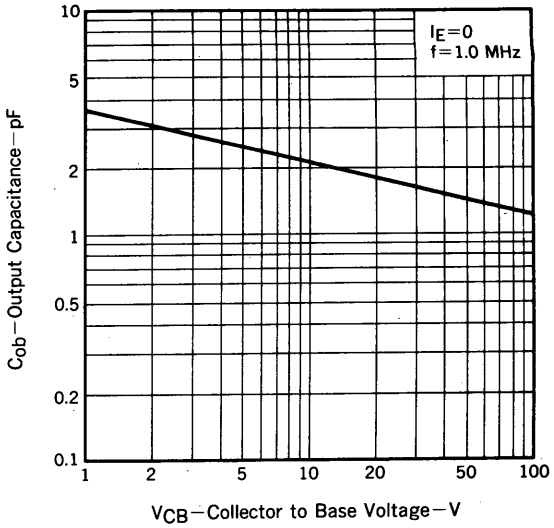


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GAIN BANDWIDTH PRODUCT vs.
EMITTER CURRENT



OUTPUT CAPACITANCE vs.
COLLECTOR TO BASE VOLTAGE



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