



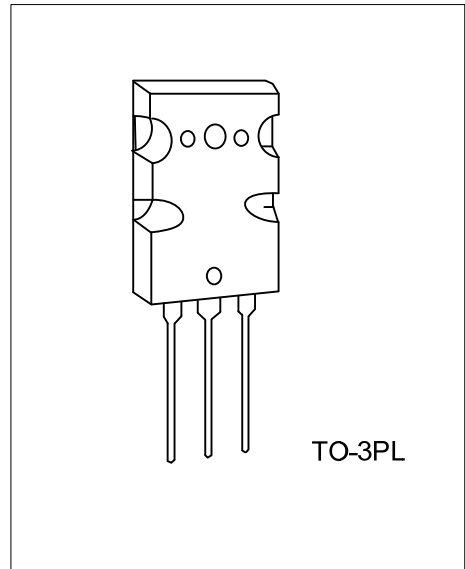
# 2SC5200

## NPN EPITAXIAL SILICON TRANSISTOR

### POWER AMPLIFIER APPLICATIONS

■ FEATURES

- \* Recommended for 100W High Fidelity Audio Frequency Amplifier Output Stage.
- \* Complementary to UTC 2SA1943



■ ORDERING INFORMATION

Order Number		Package	Pin Assignment			Packing
Lead Free	Halogen Free		1	2	3	
2SC5200-x-T3L-T	2SC5200-x-T3L-T	TO-3PL	B	C	E	Tube

<p>2SC5200L-x-T3L-T</p> <p>(1) Packing Type (2) Package Type (3) Rank (4) Lead Free</p>	<p>(1) T: Tube (2) T3L: TO-3PL (3) L refer to CLASSIFICATION OF <math>h_{FE1}</math> (4) L: Lead Free, G: Halogen Free</p>
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■ ABSOLUTE MAXIMUM RATING (T<sub>C</sub>=25°C)

PARAMETER	SYMBOL	RATINGS	UNIT
Collector-Base Voltage	V <sub>CBO</sub>	230	V
Collector-Emitter Voltage	V <sub>CEO</sub>	230	V
Emitter-Base Voltage	V <sub>EBO</sub>	5	V
Collector Current	I <sub>C</sub>	15	A
Base Current	I <sub>B</sub>	1.5	A
Collector Power Dissipation (T <sub>C</sub> =25°C)	P <sub>C</sub>	150	W
Junction Temperature	T <sub>J</sub>	150	°C
Storage Temperature Range	T <sub>STG</sub>	-55 ~ 150	°C

Note: Absolute maximum ratings are those values beyond which the device could be permanently damaged.

Absolute maximum ratings are stress ratings only and functional device operation is not implied.

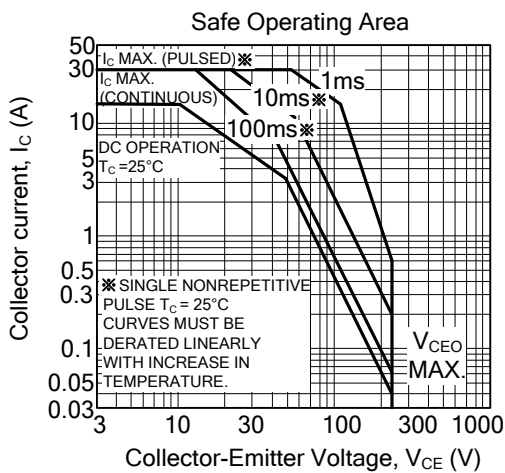
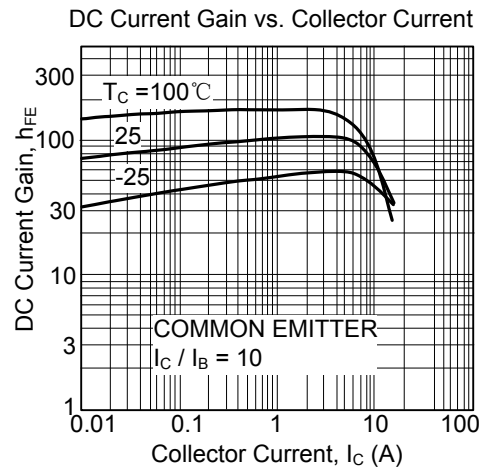
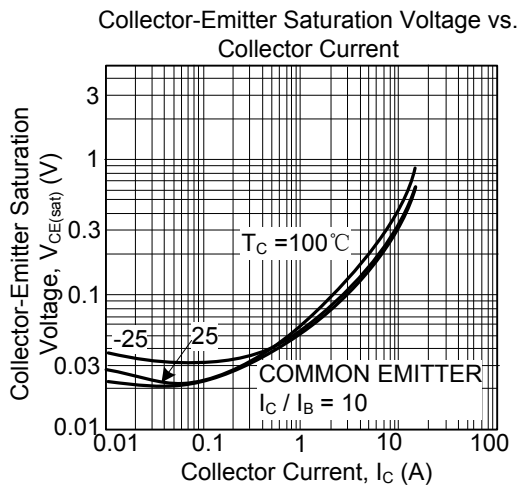
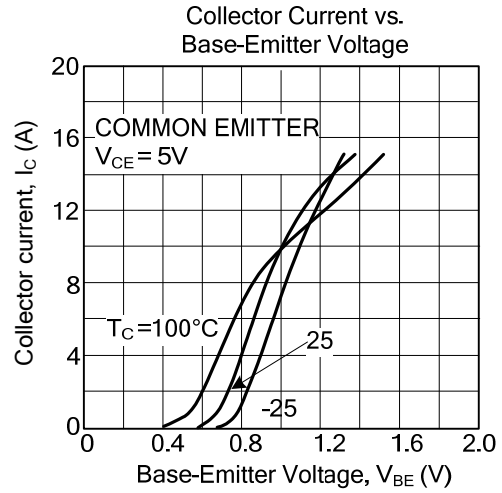
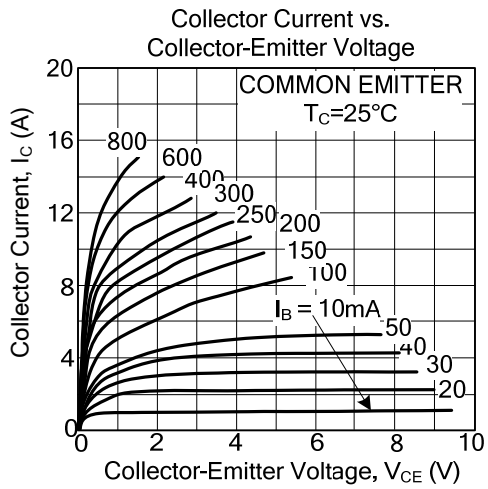
■ ELECTRICAL CHARACTERISTICS (T<sub>C</sub>=25°C)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Collector-Emitter Breakdown Voltage	V <sub>(BR)CEO</sub>	I <sub>C</sub> = 50mA, I <sub>B</sub> =0	230			V
Collector-Emitter Saturation Voltage	V <sub>CE(SAT)</sub>	I <sub>C</sub> = 8A, I <sub>B</sub> = 0.8A		0.4	3.0	V
Base -Emitter Voltage	V <sub>BE</sub>	V <sub>CE</sub> = 5V, I <sub>C</sub> = 7A		1.0	1.5	V
Collector Cut-off Current	I <sub>CBO</sub>	V <sub>CB</sub> = 230V, I <sub>E</sub> =0			5.0	μA
Emitter Cut-off Current	I <sub>EBO</sub>	V <sub>EB</sub> = 5V, I <sub>C</sub> =0			5.0	μA
DC Current Gain	h <sub>FE1</sub>	V <sub>CE</sub> = 5V, I <sub>C</sub> = 1A	55		160	
	h <sub>FE2</sub>	V <sub>CE</sub> = 5V, I <sub>C</sub> = 7A	35	60		
Transition Frequency	f <sub>T</sub>	V <sub>CE</sub> = 5V, I <sub>C</sub> = 1A		30		MHz
Collector Output Capacitance	C <sub>OB</sub>	V <sub>CB</sub> = 10V, I <sub>E</sub> =0, f=1MHz		200		pF

■ CLASSIFICATION OF h<sub>FE1</sub>

RANK	R	O
Range	55 ~ 110	80 ~ 160

■ TYPICAL CHARACTERISTICS



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