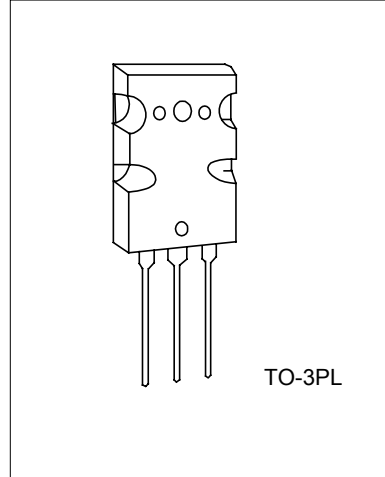


# UTC 2SC5200 NPN EPITAXIAL SILICON TRANSISTOR

## POWER AMPLIFIER APPLICATIONS

### FEATURES

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



\*Pb-free plating product number: 2SC5200L

### ABSOLUTE MAXIMUM RATINGS (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

### 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		0.40	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

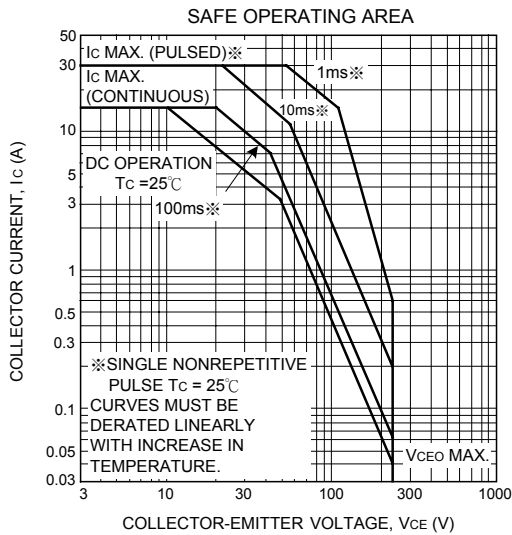
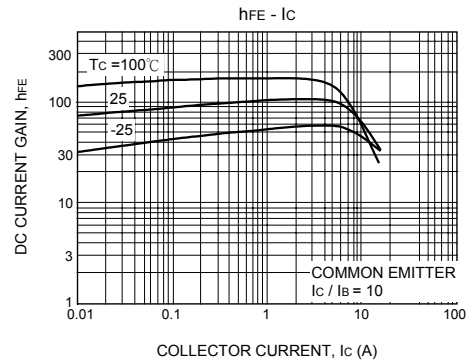
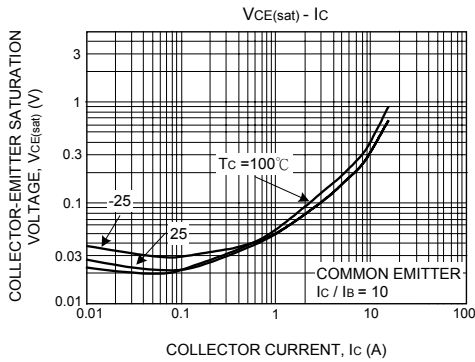
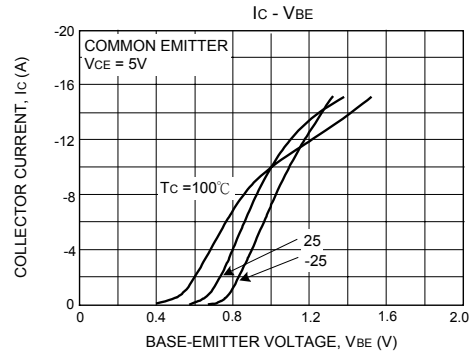
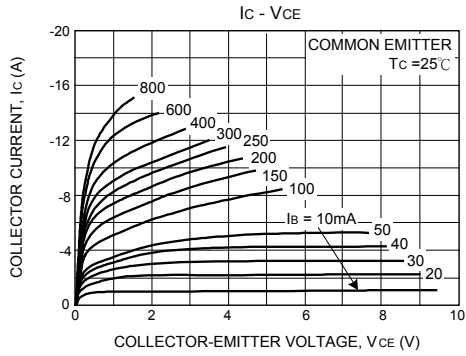
Note: h<sub>FE</sub> (1) Classification, R : 55 ~ 110, O : 80 ~ 160

### CLASSIFICATION OF HFE1

RANK	R	O
Range	55 ~ 110	80 ~ 160

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## TYPICAL CHARACTERISTICS



## UTC 2SC5200 NPN EPITAXIAL SILICON TRANSISTOR

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