



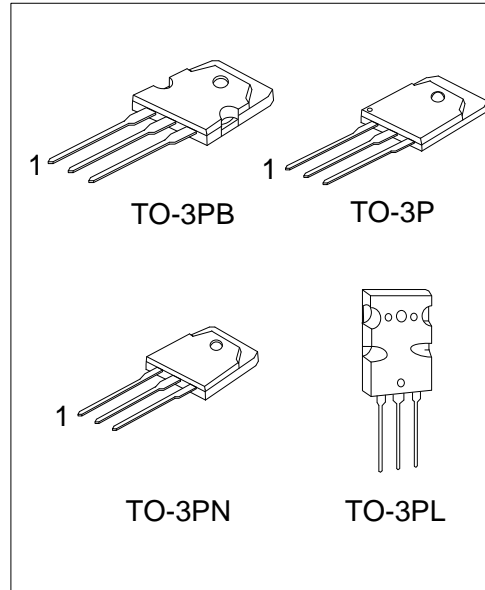
## 2SC5200

## NPN EPITAXIAL SILICON TRANSISTOR

### POWER AMPLIFIER APPLICATIONS

#### FEATURES

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



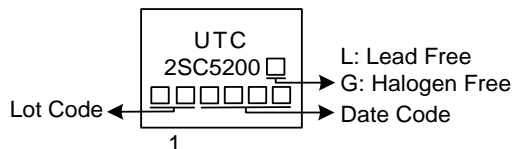
#### ORDERING INFORMATION

Ordering Number		Package	Pin Assignment			Packing
Lead Free	Halogen Free		1	2	3	
2SC5200L-x-T3P-T	2SC5200G-x-T3P-T	TO-3P	B	C	E	Tube
2SC5200L-x-T3B-T	2SC5200G-x-T3B-T	TO-3PB	B	C	E	Tube
2SC5200L-x-T3L-T	2SC5200G-x-T3L-T	TO-3PL	B	C	E	Tube
2SC5200L-x-T3N-T	2SC5200G-x-T3N-T	TO-3PN	B	C	E	Tube

Note: Pin Assignment: B: Base C: Collector E: Emitter

<p>2SC5200G-x-T3P-T</p>	<p>(1) T: Tube                  (2) T3P: TO-3P, T3B: TO-3PB, T3L: TO-3PL                  T3L: TO-3PN                  (3) Rrefer to CLASSIFICATION OF <math>h_{FE1}</math>                  (4) G: Halogen Free and Lead Free, L: Lead Free</p>
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#### MARKING



■ **ABSOLUTE MAXIMUM RATING** ( $T_C=25^\circ\text{C}$ , unless otherwise specified)

PARAMETER	SYMBOL	RATINGS	UNIT
Collector-Base Voltage	$V_{CBO}$	230	V
Collector-Emitter Voltage	$V_{CEO}$	230	V
Emitter-Base Voltage	$V_{EBO}$	5	V
Collector Current	$I_C$	15	A
Base Current	$I_B$	1.5	A
Collector Power Dissipation	$P_C$	150	W
Junction Temperature	$T_J$	+150	$^\circ\text{C}$
Storage Temperature Range	$T_{STG}$	-55 ~ 150	$^\circ\text{C}$

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.

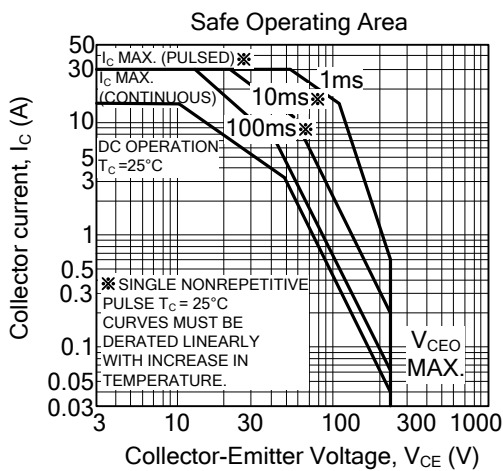
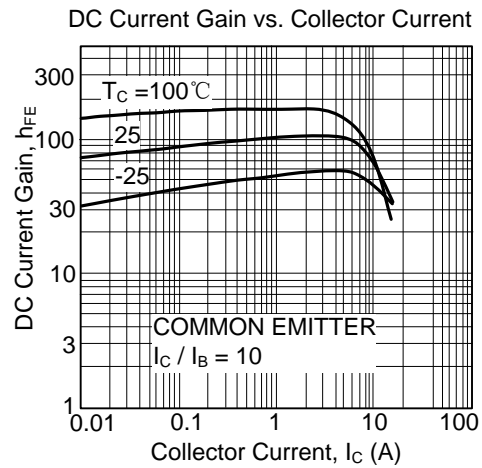
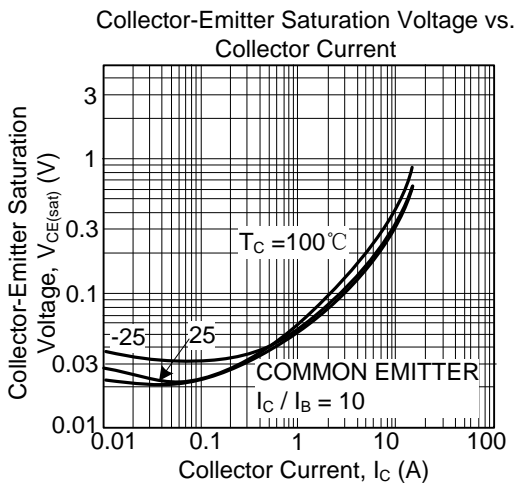
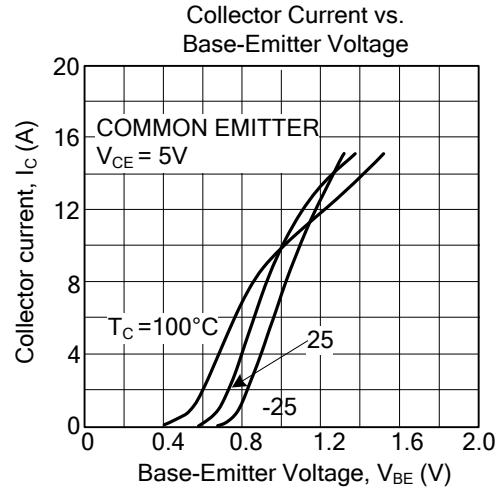
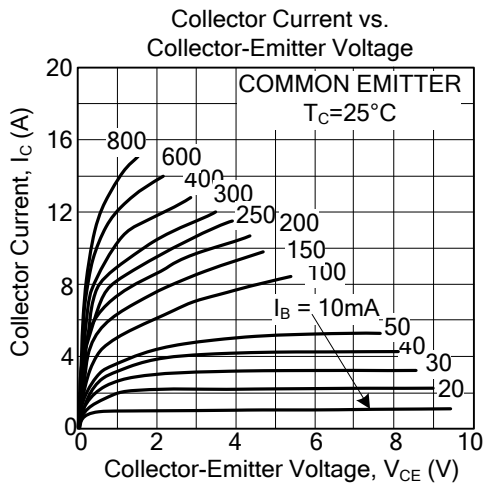
■ **ELECTRICAL CHARACTERISTICS** ( $T_C=25^\circ\text{C}$ , unless otherwise specified)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C=50\text{mA}, I_B=0$	230			V
Collector-Emitter Saturation Voltage	$V_{CE(SAT)}$	$I_C=8\text{A}, I_B=0.8\text{A}$		0.4	3.0	V
Base -Emitter Voltage	$V_{BE}$	$V_{CE}=5\text{V}, I_C=7\text{A}$		1.0	1.5	V
Collector Cut-off Current	$I_{CBO}$	$V_{CB}=230\text{V}, I_E=0$			5.0	$\mu\text{A}$
Emitter Cut-off Current	$I_{EBO}$	$V_{EB}=5\text{V}, I_C=0$			5.0	$\mu\text{A}$
DC Current Gain	$h_{FE1}$	$V_{CE}=5\text{V}, I_C=1\text{A}$	55		160	
	$h_{FE2}$	$V_{CE}=5\text{V}, I_C=7\text{A}$	35	60		
Transition Frequency	$f_T$	$V_{CE}=5\text{V}, I_C=1\text{A}$		30		MHz
Collector Output Capacitance	$C_{OB}$	$V_{CB}=10\text{V}, I_E=0, f=1\text{MHz}$		200		pF

■ **CLASSIFICATION OF  $h_{FE1}$**

RANK	R	O
Range	55 ~ 110	80 ~ 160

## TYPICAL CHARACTERISTICS



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