

■ Product characteristics

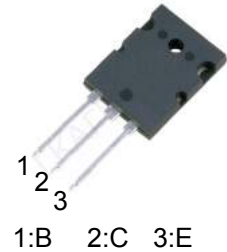
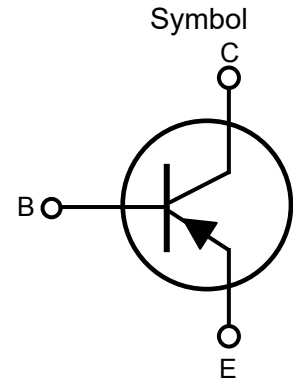
V_{CBO}	-300V
V_{CEO}	-300V
I_C	-18A

■ Applications

High-Fidelity Audio Output Amplifier
General Purpose Power Amplifier

■ Features

High Voltage : $V_{CEO}=-300V$
Complement to 2SC5200



■ Absolute Maximum Ratings ($T_C=25^{\circ}C$ unless otherwise specified)

Parameter	Symbol	Rating	Unit
Collector-Base Voltage	BV_{CBO}	-300	V
Collector-Emitter Voltage	BV_{CEO}	-300	V
Emitter-Base Voltage	BV_{EBO}	-5	V
Collector Current(DC)	I_C	-18	A
Base Current	I_B	-1.5	A
Total Device Dissipation($T_C=25^{\circ}C$)	P_D	180	W
Derate above $25^{\circ}C$		1.04	W/ $^{\circ}C$
Junction and Storage Temperature	T_J, T_{STG}	- 50 ~ +150	$^{\circ}C$

* These ratings are limiting values above which the serviceability of any semiconductor device may be impaired.

■ Electrical Characteristics ($T_C=25^{\circ}C$ unless otherwise specified)

Parameter	Symbol	Test condition	Min	Typ	Max	Unit
Collector-Base Breakdown Voltage	BV_{CBO}	$I_C=-5mA, I_E=0$	-300			V
Collector-Emitter Breakdown Voltage	BV_{CEO}	$I_C=-10mA, R_{BE}=\infty$	-300			V
Emitter-Base Breakdown Voltage	BV_{EBO}	$I_E=-5mA, I_C=0$	-5			V
Collector Cut-off Current	I_{CBO}	$V_{CB}=-300V, I_E=0$			-5.0	μA
Emitter Cut-off Current	I_{EBO}	$V_{EB}=-5V, I_C=0$			-5.0	μA
DC Current Gain	h_{FE1}	$V_{CE}=-5V, I_C=-1A$	55		160	
DC Current Gain	h_{FE2}	$V_{CE}=-5V, I_C=-7A$	35	60		
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=-8A, I_B=-0.8A$		-0.4	-3.0	V
Base-Emitter On Voltage	$V_{BE(on)}$	$V_{CE}=-5V, I_C=-7A$		-1.0	-1.5	V
Current Gain Bandwidth Product	f_T	$V_{CE}=-5V, I_C=-1A$		30		MHz
Output Capacitance	C_{ob}	$V_{CB}=-10V, f=1MHz$		200		pF

* Pulse Test: Pulse Width=20 μs , Duty Cycle $\leq 2\%$

■ Typical Performance Characteristics

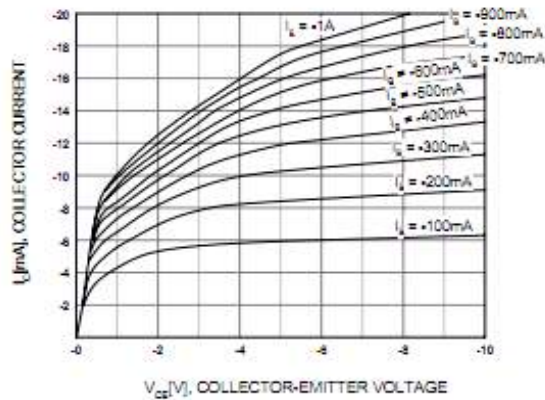


Figure 1. Static Characteristic

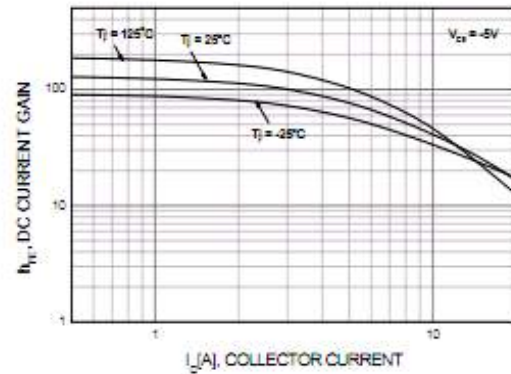


Figure 2. DC current Gain

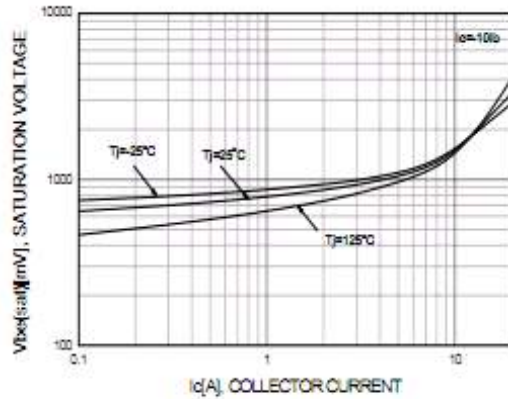


Figure 3. Base-Emitter Saturation Voltage

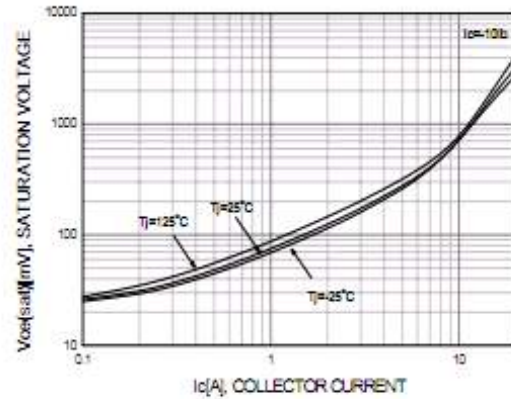


Figure 4. Collector-Emitter Saturation Voltage

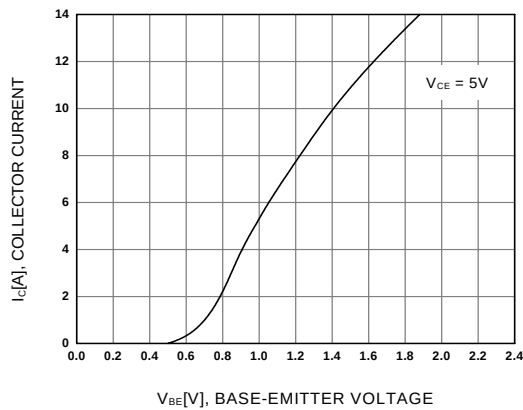


Figure 5. Base-Emitter On Voltage

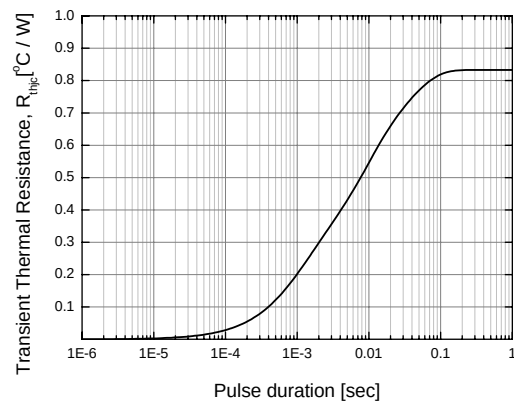


Figure 6. Thermal Resistance

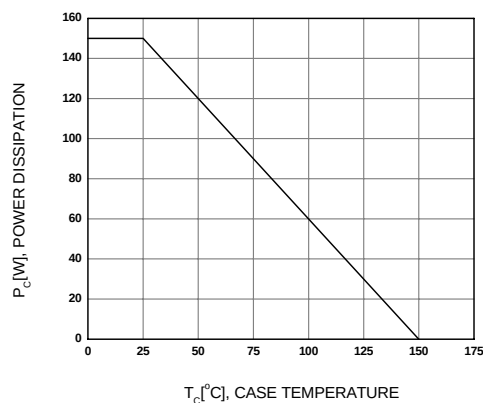


Figure 7. Power Derating

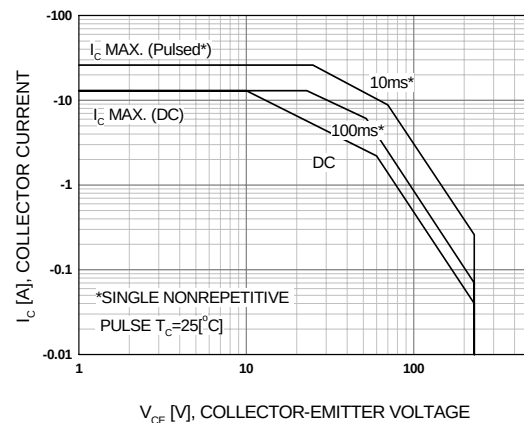


Figure 8. Safe Operating Area

Technical drawing of a rectangular component with dimensions and labels. The drawing shows a top view of the component with various features and dimensions.

Dimensions (mm):

- Overall width: 19.95
- Overall height: 39.65 ± 0.15
- Inner width: 17.90
- Inner height: 21.15
- Distance from top edge to first hole center: 6.00
- Distance from first hole center to second hole center: 7.90
- Distance from second hole center to third hole center: 7.90
- Distance from third hole center to fourth hole center: 7.90
- Distance from fourth hole center to right edge: 7.90
- Distance from left edge to first hole center: 7.90
- Distance from bottom edge to first hole center: 16.00
- Distance from bottom edge to second hole center: 19.90
- Distance from bottom edge to third hole center: 21.15
- Distance from bottom edge to fourth hole center: 21.15
- Distance from bottom edge to fifth hole center: 21.15
- Distance from bottom edge to sixth hole center: 21.15
- Distance from bottom edge to seventh hole center: 21.15
- Distance from bottom edge to eighth hole center: 21.15
- Distance from bottom edge to ninth hole center: 21.15
- Distance from bottom edge to tenth hole center: 21.15
- Distance from bottom edge to eleventh hole center: 21.15
- Distance from bottom edge to twelfth hole center: 21.15
- Distance from bottom edge to thirteenth hole center: 21.15
- Distance from bottom edge to fourteenth hole center: 21.15
- Distance from bottom edge to fifteenth hole center: 21.15
- Distance from bottom edge to sixteenth hole center: 21.15
- Distance from bottom edge to seventeenth hole center: 21.15
- Distance from bottom edge to eighteenth hole center: 21.15
- Distance from bottom edge to nineteenth hole center: 21.15
- Distance from bottom edge to twentieth hole center: 21.15
- Distance from bottom edge to twenty-first hole center: 21.15
- Distance from bottom edge to twenty-second hole center: 21.15
- Distance from bottom edge to twenty-third hole center: 21.15
- Distance from bottom edge to twenty-fourth hole center: 21.15
- Distance from bottom edge to twenty-fifth hole center: 21.15
- Distance from bottom edge to twenty-sixth hole center: 21.15
- Distance from bottom edge to twenty-seventh hole center: 21.15
- Distance from bottom edge to twenty-eighth hole center: 21.15
- Distance from bottom edge to twenty-ninth hole center: 21.15
- Distance from bottom edge to thirtieth hole center: 21.15
- Distance from bottom edge to thirty-first hole center: 21.15
- Distance from bottom edge to thirty-second hole center: 21.15
- Distance from bottom edge to thirty-third hole center: 21.15
- Distance from bottom edge to thirty-fourth hole center: 21.15
- Distance from bottom edge to thirty-fifth hole center: 21.15
- Distance from bottom edge to thirty-sixth hole center: 21.15
- Distance from bottom edge to thirty-seventh hole center: 21.15
- Distance from bottom edge to thirty-eighth hole center: 21.15
- Distance from bottom edge to thirty-ninth hole center: 21.15
- Distance from bottom edge to fortieth hole center: 21.15
- Distance from bottom edge to forty-first hole center: 21.15
- Distance from bottom edge to forty-second hole center: 21.15
- Distance from bottom edge to forty-third hole center: 21.15
- Distance from bottom edge to forty-fourth hole center: 21.15
- Distance from bottom edge to forty-fifth hole center: 21.15
- Distance from bottom edge to forty-sixth hole center: 21.15
- Distance from bottom edge to forty-seventh hole center: 21.15
- Distance from bottom edge to forty-eighth hole center: 21.15
- Distance from bottom edge to forty-ninth hole center: 21.15
- Distance from bottom edge to fiftieth hole center: 21.15
- Distance from bottom edge to fifty-first hole center: 21.15
- Distance from bottom edge to fifty-second hole center: 21.15
- Distance from bottom edge to fifty-third hole center: 21.15
- Distance from bottom edge to fifty-fourth hole center: 21.15
- Distance from bottom edge to fifty-fifth hole center: 21.15
- Distance from bottom edge to fifty-sixth hole center: 21.15
- Distance from bottom edge to fifty-seventh hole center: 21.15
- Distance from bottom edge to fifty-eighth hole center: 21.15
- Distance from bottom edge to fifty-ninth hole center: 21.15
- Distance from bottom edge to sixtieth hole center: 21.15
- Distance from bottom edge to sixty-first hole center: 21.15
- Distance from bottom edge to sixty-second hole center: 21.15
- Distance from bottom edge to sixty-third hole center: 21.15
- Distance from bottom edge to sixty-fourth hole center: 21.15
- Distance from bottom edge to sixty-fifth hole center: 21.15
- Distance from bottom edge to sixty-sixth hole center: 21.15
- Distance from bottom edge to sixty-seventh hole center: 21.15
- Distance from bottom edge to sixty-eighth hole center: 21.15
- Distance from bottom edge to sixty-ninth hole center: 21.15
- Distance from bottom edge to seventieth hole center: 21.15
- Distance from bottom edge to seventy-first hole center: 21.15
- Distance from bottom edge to seventy-second hole center: 21.15
- Distance from bottom edge to seventy-third hole center: 21.15
- Distance from bottom edge to seventy-fourth hole center: 21.15
- Distance from bottom edge to seventy-fifth hole center: 21.15
- Distance from bottom edge to seventy-sixth hole center: 21.15
- Distance from bottom edge to seventy-seventh hole center: 21.15
- Distance from bottom edge to seventy-eighth hole center: 21.15
- Distance from bottom edge to seventy-ninth hole center: 21.15
- Distance from bottom edge to eightieth hole center: 21.15
- Distance from bottom edge to eighty-first hole center: 21.15
- Distance from bottom edge to eighty-second hole center: 21.15
- Distance from bottom edge to eighty-third hole center: 21.15
- Distance from bottom edge to eighty-fourth hole center: 21.15
- Distance from bottom edge to eighty-fifth hole center: 21.15
- Distance from bottom edge to eighty-sixth hole center: 21.15
- Distance from bottom edge to eighty-seventh hole center: 21.15
- Distance from bottom edge to eighty-eighth hole center: 21.15
- Distance from bottom edge to eighty-ninth hole center: 21.15
- Distance from bottom edge to ninetieth hole center: 21.15
- Distance from bottom edge to ninety-first hole center: 21.15
- Distance from bottom edge to ninety-second hole center: 21.15
- Distance from bottom edge to ninety-third hole center: 21.15
- Distance from bottom edge to ninety-fourth hole center: 21.15
- Distance from bottom edge to ninety-fifth hole center: 21.15
- Distance from bottom edge to ninety-sixth hole center: 21.15
- Distance from bottom edge to ninety-seventh hole center: 21.15
- Distance from bottom edge to ninety-eighth hole center: 21.15
- Distance from bottom edge to ninety-ninth hole center: 21.15
- Distance from bottom edge to one hundred hole center: 21.15

Labels:

- R2.00
- R2.37
- R1.00
- R1.37
- 3- $\phi 2.00$
- 2.50
- 2-2.56 ± 0.05
- 3.06 ± 0.05
- 1.00
- 5.45
- 5.45

