



# UNISONIC TECHNOLOGIES CO., LTD

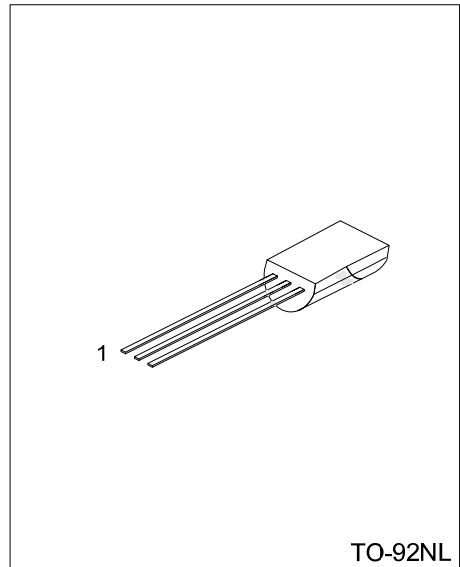
## 2SC2235

## NPN SILICON TRANSISTOR

AUDIO POWER AMPLIFIER  
APPLICATIONS DRIVER STAGE  
AMPLIFIER APPLICATIONS

### FEATURES

\* Complimentary to UTC 2SA965



Lead-free: 2SC2235L  
Halogen-free: 2SC2235G

### ORDERING INFORMATION

Ordering Number			Package	Pin Assignment			Packing
Normal	Lead Free	Halogen Free		1	2	3	
2SC2235-x-T9N-B	2SC2235L-x-T9N-B	2SC2235G-x-T9N-B	TO-92NL	E	C	B	Tape Box
2SC2235-x-T9N-K	2SC2235L-x-T9N-K	2SC2235G-x-T9N-K	TO-92NL	E	C	B	Bulk

<p>2SC2235L-x-T9N-B</p> <p>(1) Packing Type (2) Package Type (3) Rank (4) Lead Plating</p>	<p>(1) B: Tape Box, K: Bulk (2) T9N: TO-92NL (3) x: refer to Classification of <math>h_{FE}</math> (4) G: Halogen Free, L: Lead Free, Blank: Pb/Sn</p>
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■ ABSOLUTE MAXIMUM RATING ( Ta=25°C ,unless otherwise specified )

PARAMETER	SYMBOL	RATINGS	UNIT
Collector-Base Voltage	$V_{CBO}$	120	V
Collector-Emitter Voltage	$V_{CEO}$	120	V
Emitter-Base Voltage	$V_{EBO}$	5	V
Collector Current	$I_C$	800	mA
Emitter Current	$I_E$	-800	mA
Collector Power Dissipation	$P_C$	900	mW
Junction Temperature	$T_J$	150	°C
Storage Temperature	$T_{STG}$	-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.

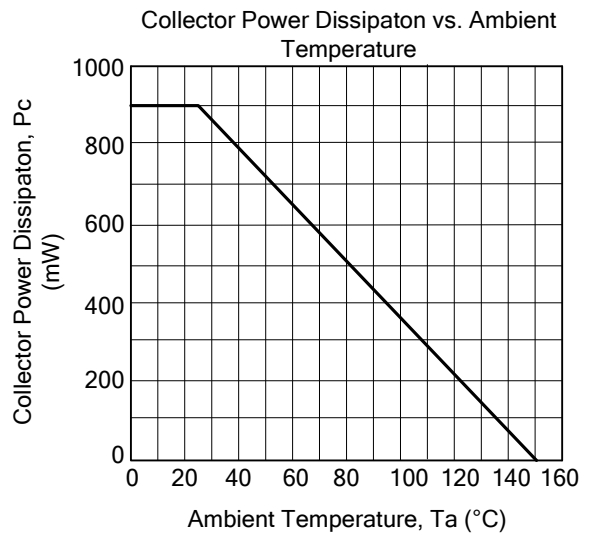
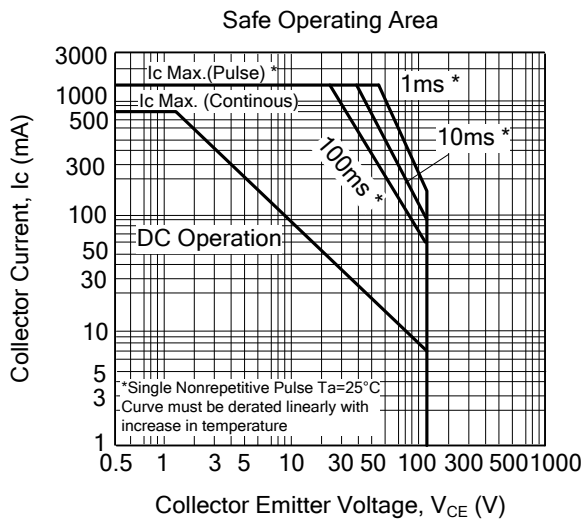
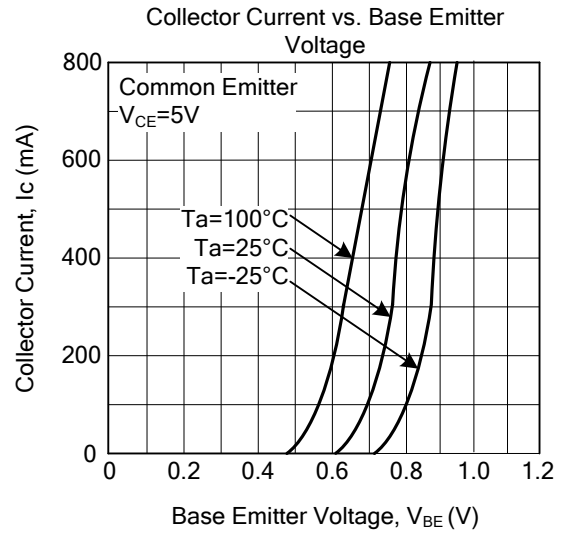
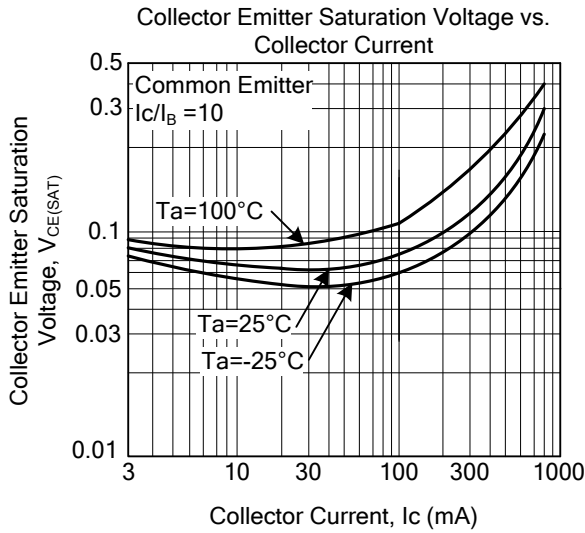
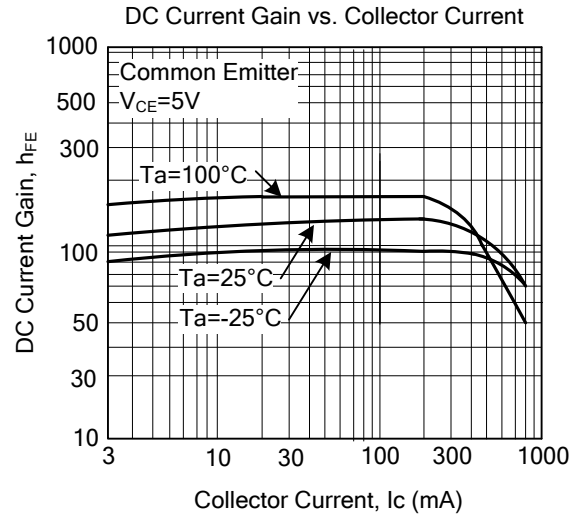
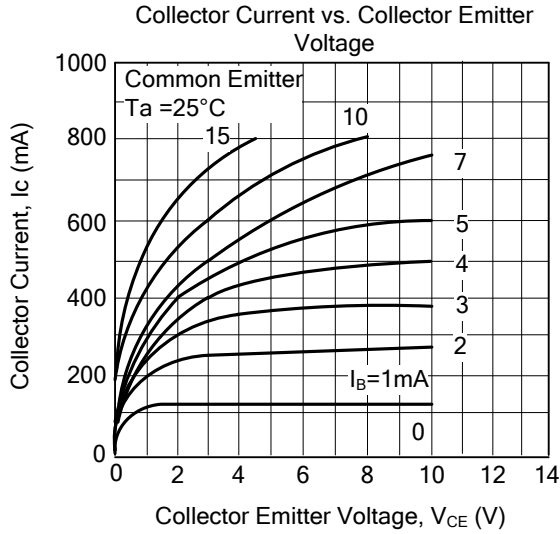
■ ELECTRICAL CHARACTERISTICS (Ta=25°C,unless otherwise specified)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Collector-Emitter Breakdown Voltage	$V_{B_{CEO}}$	$I_C = 10\text{mA}, I_B = 0$	120			V
Emitter-Base Breakdown Voltage	$V_{B_{EBO}}$	$I_E = 1\text{mA}, I_C = 0$	5			V
Collector Cut-off Current	$I_{CBO}$	$V_{CB} = 120\text{V}, I_E = 0$			100	nA
Emitter Cut-off Current	$I_{EBO}$	$V_{EB} = 5\text{V}, I_C = 0$			100	nA
DC Current Gain	$h_{FE}$	$V_{CE} = 5\text{V}, I_C = 100\text{mA}$	80		240	
Collector-Emitter Saturation Voltage	$V_{CE(SAT)}$	$I_C = 500\text{mA}, I_B = 50\text{mA}$			1.0	V
Base-Emitter Voltage	$V_{BE}$	$V_{CE} = 5\text{V}, I_C = 500\text{mA}$			1.0	V
Transition Frequency	$f_T$	$V_{CE} = 5\text{V}, I_C = 100\text{mA}$		120		MHz
Collector Output Capacitance	$C_{ob}$	$V_{CB} = 10\text{V}, I_E = 0, f = 1\text{MHz}$			30	pF

■ CLASSIFICATION OF  $h_{FE}$

RANK	Y	O
RANGE	120-240	80-160

■ TYPICAL CHARACTERISTICS



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