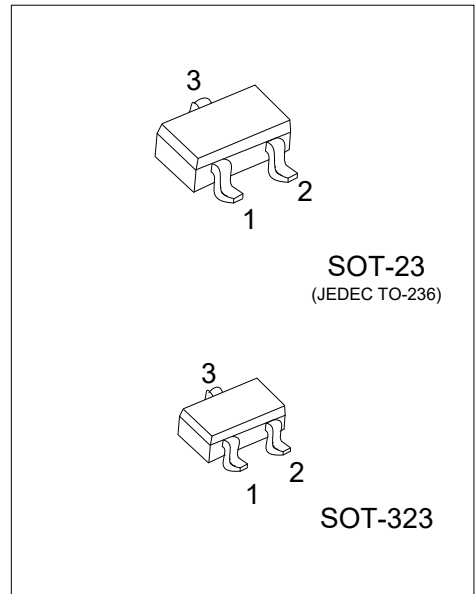




2SC1623

NPN SILICON TRANSISTOR

AUDIO FREQUENCY GENERAL PURPOSE AMPLIFIER NPN SILICON TRANSISTOR MINI MOLD



DESCRIPTION

The UTC **2SC1623** is a NPN silicon transistor using UTC's advanced technology to provide customers with high DC current gain and high breakdown voltage.

The UTC **2SC1623** is usually used in audio frequency general purpose amplifier.

FEATURES

- * High breakdown Voltage
- * High DC Current Gain

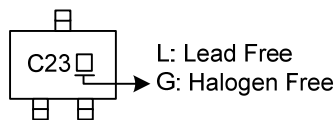
ORDERING INFORMATION

Ordering Number		Package	Pin Assignment			Packing
Lead Free	Halogen Free		1	2	3	
2SC1623L-xx-AE3-R	2SC1623G-xx-AE3-R	SOT-23	B	E	C	Tape Reel
2SC1623L-xx-AL3-R	2SC1623G-xx-AL3-R	SOT-323	B	E	C	Tape Reel

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

<p>2SC1623G-xx-AE3-R</p> <p>(1) Packing Type (2) Package Type (3) Rank (4) Green Package</p>	<p>(1) R: Tape Reel (2) AE3: SOT-23, AL3: SOT-323 (3) xx: refer to Classification of h_{FE} (4) G: Halogen Free and Lead Free, L: Lead Free</p>
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MARKING



■ ABSOLUTE MAXIMUM RATINGS ($T_A=25^\circ\text{C}$, unless otherwise specified)

PARAMETER		SYMBOL	RATINGS	UNIT
Collector to Base Voltage		V_{CBO}	60	V
Collector to Emitter Voltage		V_{CEO}	50	V
Emitter to Base Voltage		V_{EBO}	5.0	V
Collector Current (DC)		I_C	100	mA
Power Dissipation (Note 2)	SOT-23	P_D	200	mW
	SOT-323		150	mW
Junction Temperature		T_J	+150	$^\circ\text{C}$
Storage Temperature		T_{STG}	-55 ~ +150	$^\circ\text{C}$

Notes: 1. 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.

2. Device mounted on FR-4 substrate PC board, 2oz copper, with 1inch square copper plate.

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

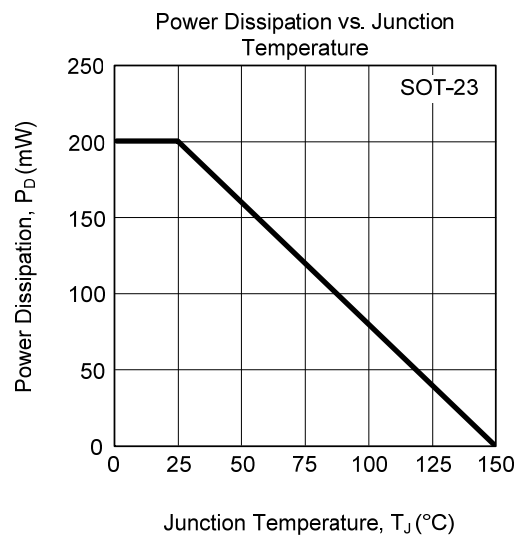
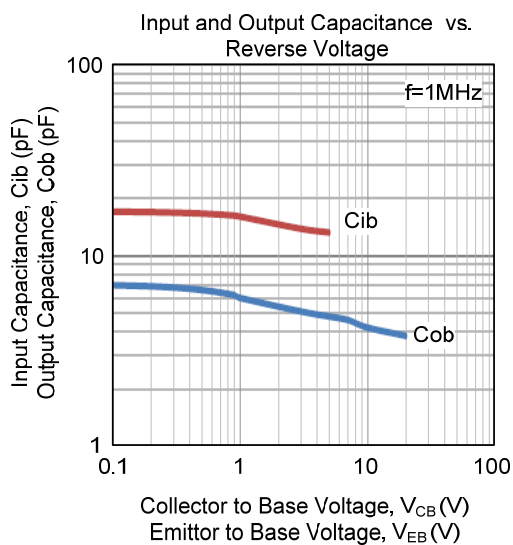
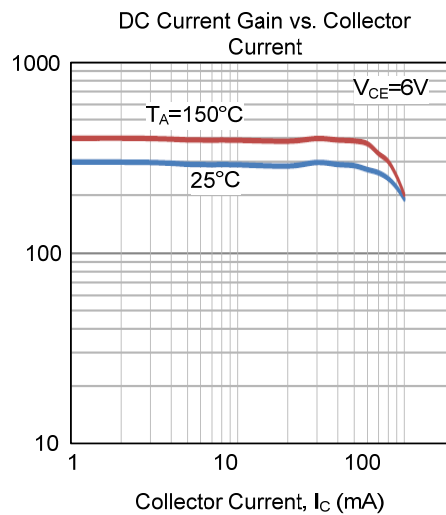
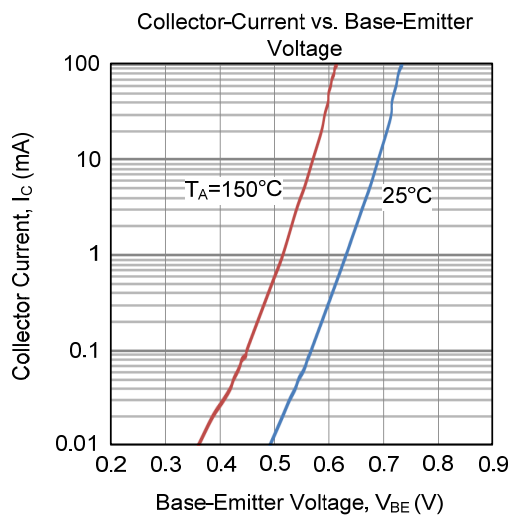
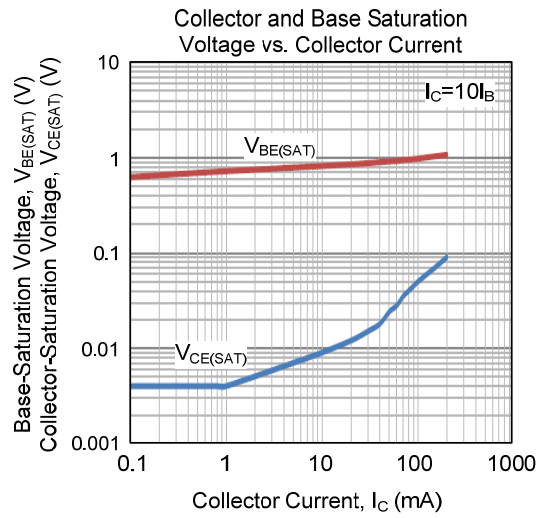
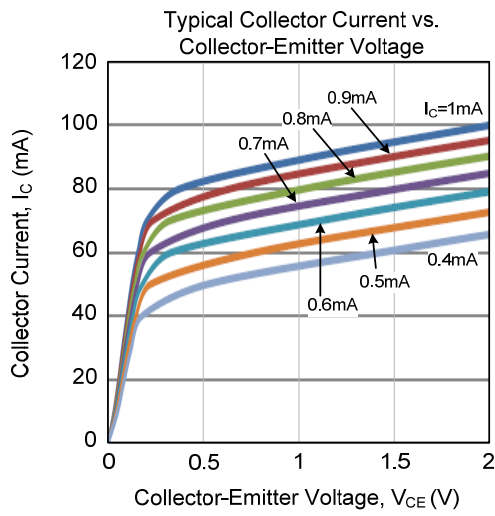
PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Collector Cutoff Current	I_{CBO}	$V_{CB}=60\text{V}, I_E=0$			0.1	μA
Emitter Cutoff Current	I_{EBO}	$V_{EB}=5.0\text{V}, I_C=0$			0.1	μA
DC Current Gain	h_{FE}	$V_{CE}=6.0\text{V}, I_C=1.0\text{mA}$ (Note 1)	90		600	
Collector Saturation Voltage	$V_{CE(SAT)}$	$I_C=100\text{mA}, I_B=10\text{mA}$ (Note 1)			0.3	V
Base to Saturation Voltage	$V_{BE(SAT)}$	$I_C=100\text{mA}, I_B=10\text{mA}$ (Note 1)			1.0	V
Base Emitter Voltage	V_{BE}	$V_{CE}=6.0\text{V}, I_C=1.0\text{mA}$ (Note 1)	0.55		0.7	V
Gain Bandwidth Product	f_T	$V_{CE}=6.0\text{V}, I_E=-10\text{mA}$		250		MHz
Output Capacitance	C_{OB}	$V_{CB}=6.0\text{V}, I_E=0, f=1.0\text{MHz}$		3.0		pF

Note: Pulsed: $P_W \leq 350\mu\text{s}$, Duty Cycle $\leq 2\%$.

■ CLASSIFICATION OF h_{FE}

RANK	L4	L5	L6	L7
RANGE	90 ~ 180	135 ~ 270	200 ~ 400	300 ~ 600

TYPICAL CHARACTERISTICS



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