

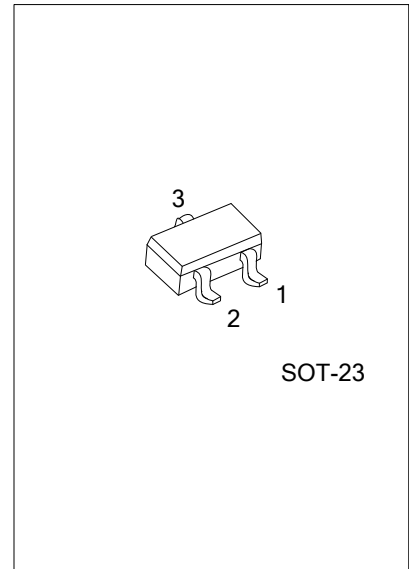


2SC1623

Preliminary

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-x-AE3-R	2SC1623G-x-AE3-R	SOT-23	E	B	C	Tape Reel

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

<p>2SC1623L-x-AE3-R</p> <p>(1) Packing Type (2) Package Type (3) (4) Lead Free</p>	<p>(1) R: Tape Reel (2) AE3: SOT-23 (3) x: refer to Classification of h_{FE} (4) G: Halogen Free, L: Lead Free</p>
--	---

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

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	P_D	200	mW
Junction Temperature	T_J	150	$^\circ\text{C}$
Storage Temperature	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 ($T_A=25^\circ\text{C}$)

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	200	600	
Collector Saturation Voltage	$V_{CE(SAT)}$	$I_C=100\text{mA}, I_B=10\text{mA}$ (Note 1)		0.15	0.3	V
Base to Saturation Voltage	$V_{BE(SAT)}$	$I_C=100\text{mA}, I_B=10\text{mA}$ (Note 1)		0.86	1.0	V
Base Emitter Voltage	V_{BE}	$V_{CE}=6.0\text{V}, I_C=1.0\text{mA}$ (Note 1)	0.55	0.62	0.65	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: 1. Pulsed: $PW \leq 350\text{ms}$, Duty Cycle $\leq 2\%$

■ CLASSIFICATION OF h_{FE}

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

UTC assumes no responsibility for equipment failures that result from using products at values that exceed, even momentarily, rated values (such as maximum ratings, operating condition ranges, or other parameters) listed in products specifications of any and all UTC products described or contained herein. UTC products are not designed for use in life support appliances, devices or systems where malfunction of these products can be reasonably expected to result in personal injury. Reproduction in whole or in part is prohibited without the prior written consent of the copyright owner. The information presented in this document does not form part of any quotation or contract, is believed to be accurate and reliable and may be changed without notice.