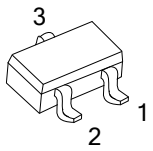
2SC1623

NPN SILICON TRANSISTOR

AUDIO FREQUENCY GENERAL PURPOSE AMPLIFIER NPN SILICON TRANSISTOR MINI MOLD



SOT-23

■ 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

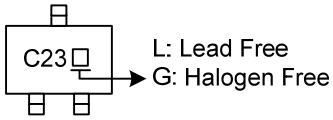
Ordering Number		Package	Pin Assignment			Packing
Lead Free	Halogen Free		1	2	3	
2SC1623L-xx-AE3-R	2SC1623G-xx-AE3-R	SOT-23	E	B	C	Tape Reel

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

2SC1623G-xx-AE3-R
(1) Packing Type
(2) Package Type
(3) Rank
(4) Green Package

(1) R: Tape Reel
(2) AE3: SOT-23
(3) xx: refer to Classification of h_{FE}
(4) G: Halogen Free and Lead Free, L: Lead Free

■ MARKING



■ ABSOLUTE MAXIMUM RATINGS (T_A=25°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	P_D	200	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 (T_A =25°C, unless otherwise specified)

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

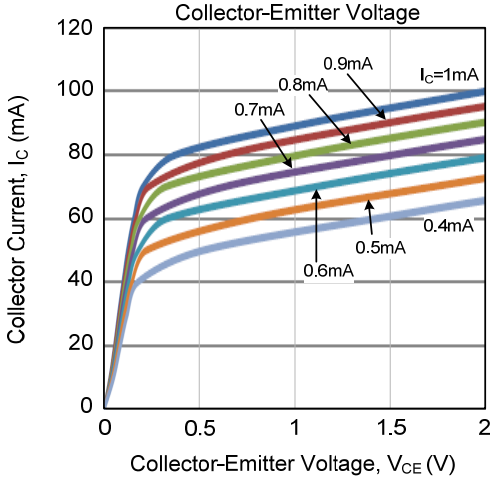
Note: Pulsed: P_W ≤ 350μs, Duty Cycle ≤ 2%.

■ CLASSIFICATION OF h_{FE}

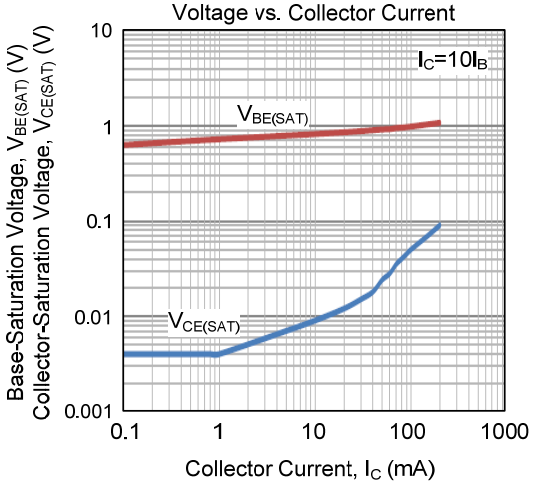
RANK	L4	L5	L6	L7
RANGE	90 ~ 180	135 ~ 270	200 ~ 400	300 ~ 600

■ TYPICAL CHARACTERISTICS

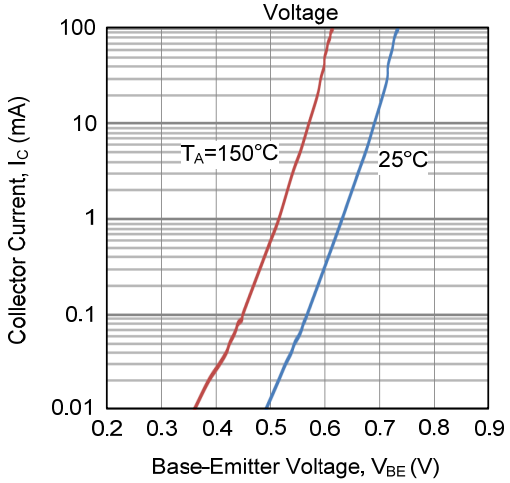
Typical Collector Current vs. Collector-Emitter Voltage



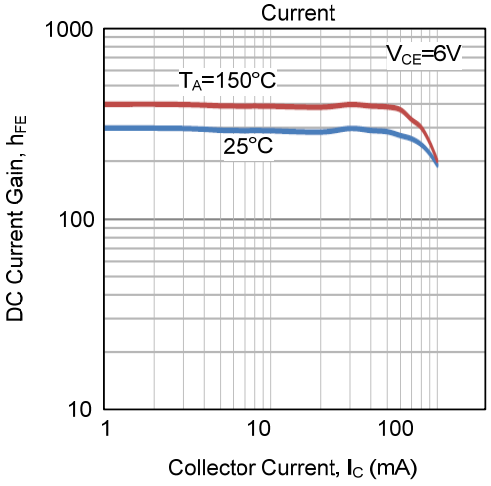
Collector and Base Saturation Voltage vs. Collector Current



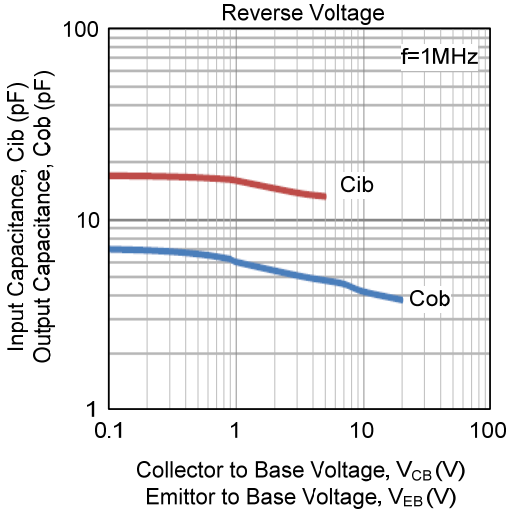
Collector-Current vs. Base-Emitter Voltage



DC Current Gain vs. Collector Current



Input and Output Capacitance vs. Reverse Voltage



Power Dissipation vs. Junction Temperature