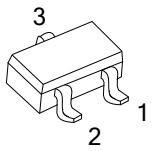
2SC1623

Preliminary

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

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

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

■ ABSOLUTE MAXIMUM RATINGS (T_A=25°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	°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)

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

■ CLASSIFICATION OF h_{FE}

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