



# 2SB772S

## PNP SILICON TRANSISTOR

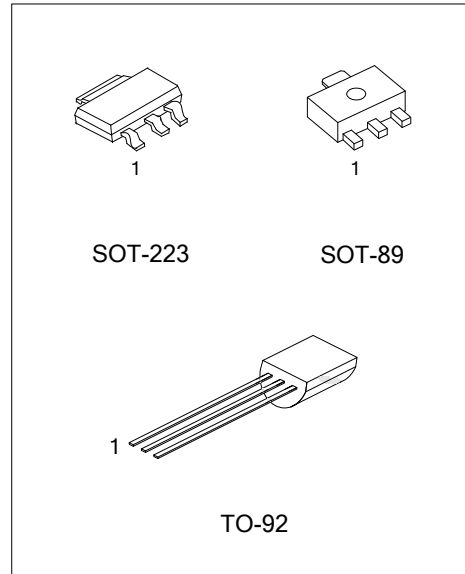
### MEDIUM POWER LOW VOLTAGE TRANSISTOR

■ DESCRIPTION

The UTC **2SB772S** is a medium power low voltage transistor, designed for audio power amplifier, DC-DC converter and voltage regulator.

■ FEATURES

- \* High current output up to 3A
- \* Low saturation voltage
- \* Complement to 2SD882S



■ ORDERING INFORMATION

Ordering Number		Package	Pin Assignment			Packing
Lead Free	Halogen Free		1	2	3	
-	2SB772SG-x-AA3-R	SOT-223	B	C	E	Tape Reel
-	2SB772SG-x-AB3-R	SOT-89	B	C	E	Tape Reel
2SB772SL-x-T92-B	2SB772SG-x-T92-B	TO-92	E	C	B	Tape Box
2SB772SL-x-T92-K	2SB772SG-x-T92-K	TO-92	E	C	B	Bulk

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

<p>2SB772SG-x-AA3-R</p> <p>(1) Packing Type (2) Package Type (3) Rank (4) Green Package</p>	<p>(1) B: Tape Box, K: Bulk, R: Tape Reel (2) AA3: SOT-223, AB3: SOT-89, T92: TO-92 (3) x: refer to Classification of <math>h_{FE2}</math> (4) G: Halogen Free and Lead Free, L: Lead Free</p>
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■ MARKING

SOT-223	SOT-89	TO-92

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

PARAMETER		SYMBOL	RATINGS	UNIT
Collector-Base Voltage		$V_{CBO}$	-40	V
Collector-Emitter Voltage		$V_{CEO}$	-30	V
Emitter-Base Voltage		$V_{EBO}$	-5	V
Peak Collector Current		$I_{CP}$	-7	A
DC Collector Current		$I_C$	-3	A
Base Current		$I_B$	-0.6	A
Power Dissipation	SOT-89	$P_D$	0.5	W
	SOT-223		1	W
	TO-92		0.5	W
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 ( $T_A=25^\circ\text{C}$ , unless otherwise specified)

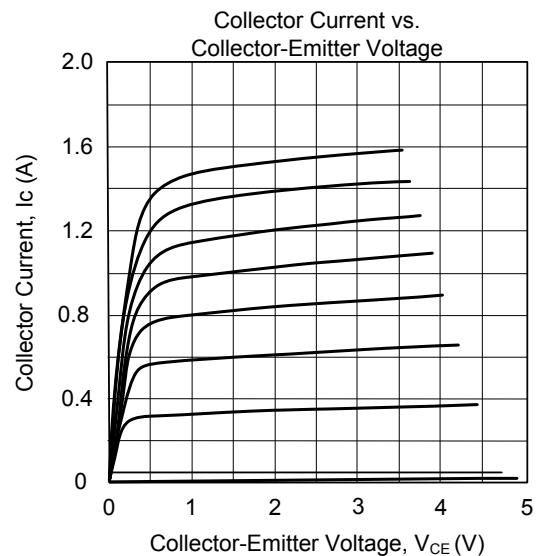
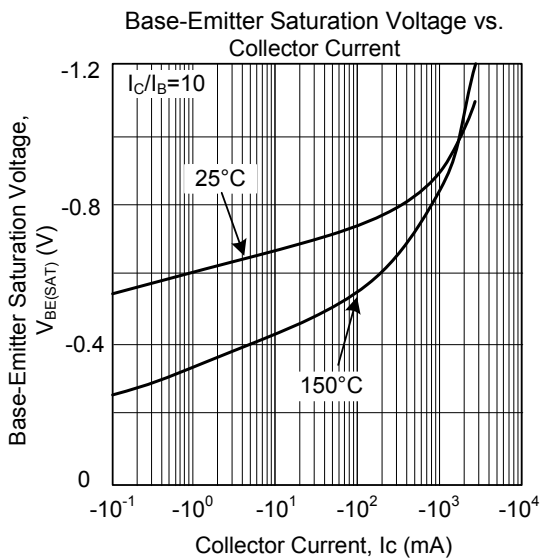
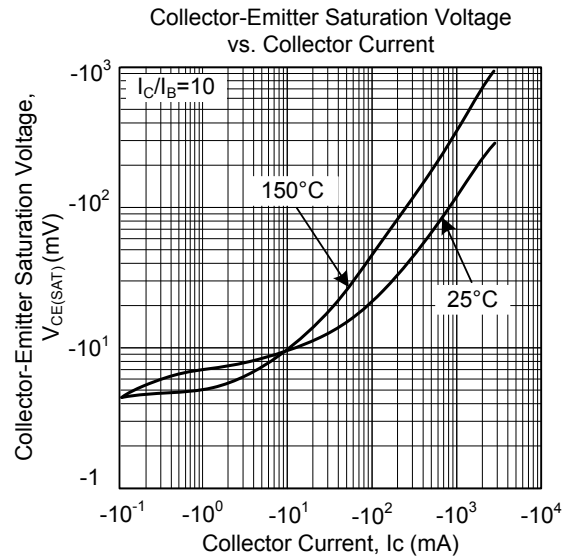
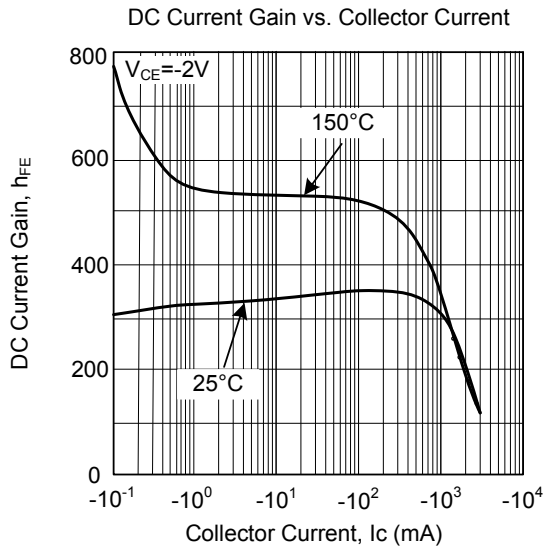
PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Collector-Base Breakdown Voltage	$BV_{CBO}$	$I_C=-100\mu\text{A}$ , $I_E=0$	-40			V
Collector-Emitter Breakdown Voltage	$BV_{CEO}$	$I_C=-1\text{mA}$ , $I_B=0$	-30			V
Emitter-Base Breakdown Voltage	$BV_{EBO}$	$I_E=-100\mu\text{A}$ , $I_C=0$	-5			V
Collector Cut-Off Current	$I_{CBO}$	$V_{CB}=-30\text{V}$ , $I_E=0$			-1000	nA
Collector Cut-Off Current	$I_{CEO}$	$V_{CE}=-30\text{V}$ , $I_B=0$			-1000	nA
Emitter Cut-Off Current	$I_{EBO}$	$V_{EB}=-3\text{V}$ , $I_C=0$			-1000	nA
DC Current Gain(Note 1)	$h_{FE1}$	$V_{CE}=-2\text{V}$ , $I_C=-20\text{mA}$	30	200		
	$h_{FE2}$	$V_{CE}=-2\text{V}$ , $I_C=-1\text{A}$	100	150	400	
Collector-Emitter Saturation Voltage	$V_{CE(SAT)}$	$I_C=-2\text{A}$ , $I_B=-0.2\text{A}$		-0.3	-0.5	V
Base-Emitter Saturation Voltage	$V_{BE(SAT)}$	$I_C=-2\text{A}$ , $I_B=-0.2\text{A}$		-1.0	-2.0	V
Current Gain Bandwidth Product	$f_T$	$V_{CE}=-5\text{V}$ , $I_C=-0.1\text{A}$		80		MHz
Output Capacitance	$C_{OB}$	$V_{CB}=-10\text{V}$ , $I_E=0$ , $f=1\text{MHz}$		45		pF

Note 1: Pulse test:  $P_w < 300\mu\text{s}$ , Duty Cycle  $< 2\%$

■ CLASSIFICATION OF  $h_{FE2}$

RANK	Q	P	E
RANGE	100 ~ 200	160 ~ 320	200 ~ 400

## TYPICAL CHARACTERISTICS



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