



2SB772S

PNP SILICON TRANSISTOR

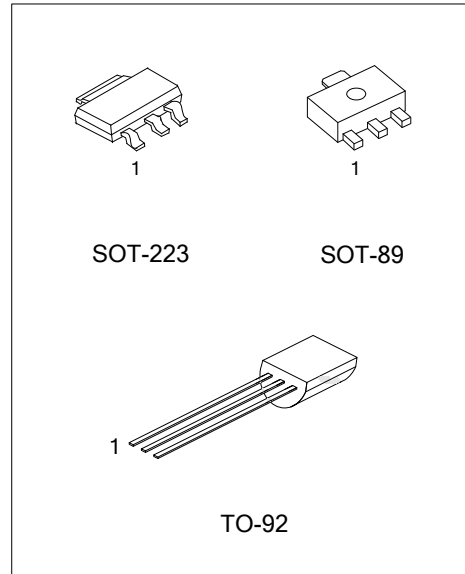
MEDIUM POWER LOW VOLTAGE TRANSISTOR

■ 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) B: Tape Box, K: Bulk, R: Tape Reel (2) AA3: SOT-223, AB3: SOT-89, T92: TO-92 (3) x: refer to Classification of h_{FE2} (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)

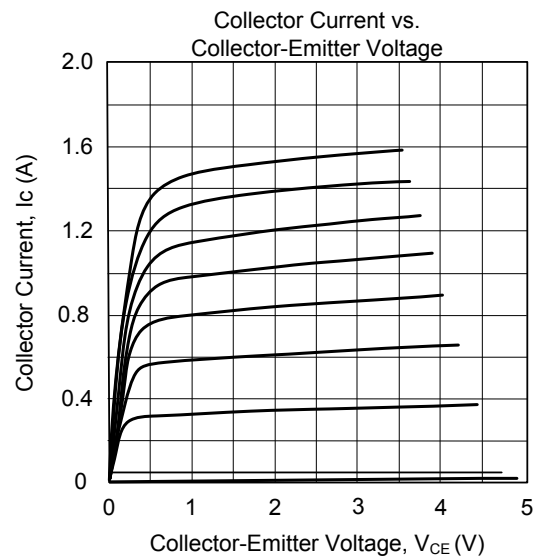
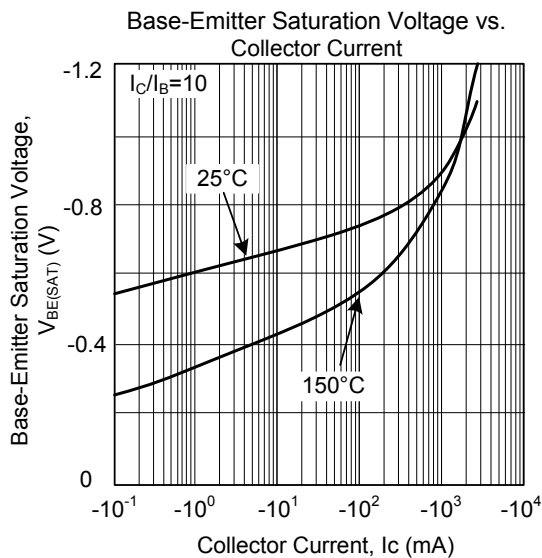
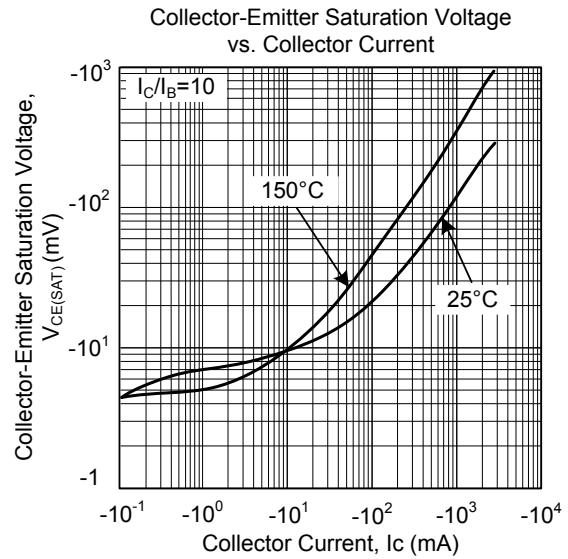
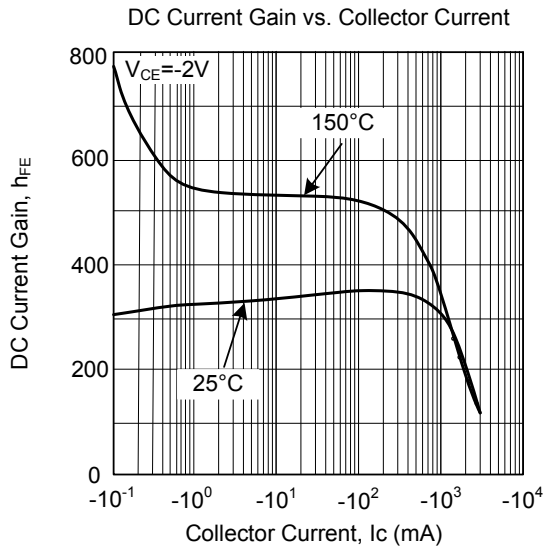
PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Collector-Base Breakdown Voltage	BV_{CBO}	$I_C=-100\mu\text{A}$, $I_E=0$	-40			V
Collector-Emitter Breakdown Voltage	BV_{CEO}	$I_C=-1\text{mA}$, $I_B=0$	-30			V
Emitter-Base Breakdown Voltage	BV_{EBO}	$I_E=-100\mu\text{A}$, $I_C=0$	-5			V
Collector Cut-Off 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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