



B772SS

PNP SILICON TRANSISTOR

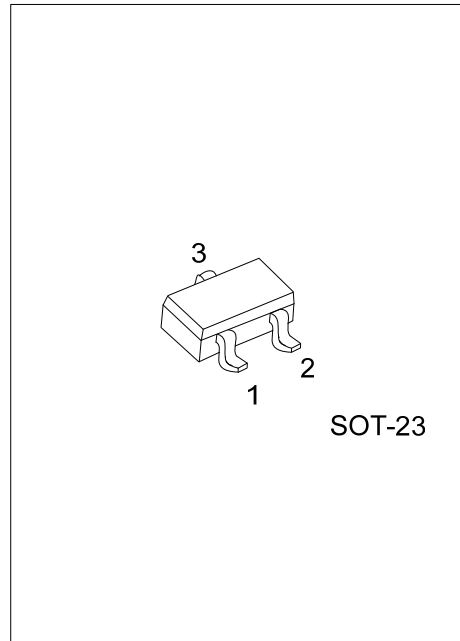
MEDIUM POWER LOW VOLTAGE TRANSISTOR

DESCRIPTION

The UTC **B772SS** 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 D882SS



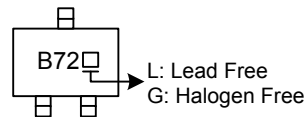
ORDERING INFORMATION

Order Number		Package	Pin Assignment			Packing
Lead Free	Halogen Free		1	2	3	
B772SSL-x-AE3-R	B772SSG-x-AE3-R	SOT-23	B	E	C	Tape Reel

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

<p>B772SSG-x-AE3-R</p>	<p>(1) R: Tape Reel</p> <p>(2) AE3: SOT-23</p> <p>(3) x: refer to Classification of h_{FE2}</p> <p>(4) G: Halogen Free and Lead Free, L: Lead Free</p>
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MARKING



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

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
Collector Current	Pulse	I_{CP}	-7	A
	DC	I_C	-3	A
Base Current		I_B	-0.6	A
Collector Dissipation	$T_C=25^\circ\text{C}$	P_D	10	W
	$T_A=25^\circ\text{C}$		350	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.

■ THERMAL DATA

PARAMETER	SYMBOL	RATINGS	UNIT
Junction to Ambient	θ_{JA}	357	$^\circ\text{C/W}$
Junction to Case	θ_{JC}	104	$^\circ\text{C/W}$

■ ELECTRICAL CHARACTERISTICS ($T_A = 25^\circ\text{C}$, unless otherwise specified)

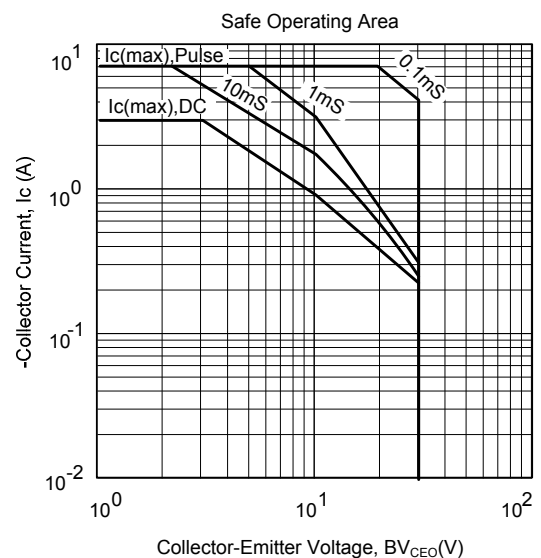
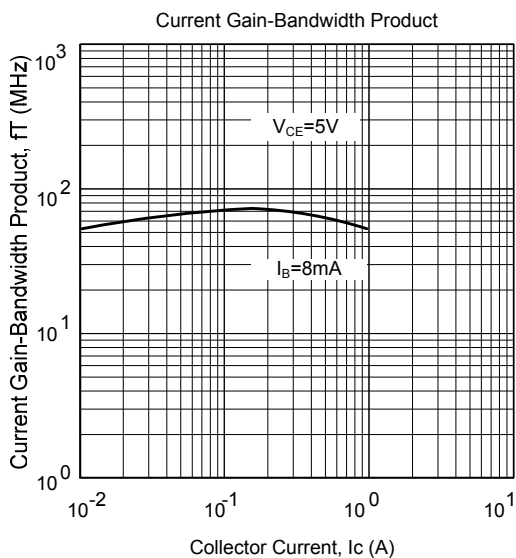
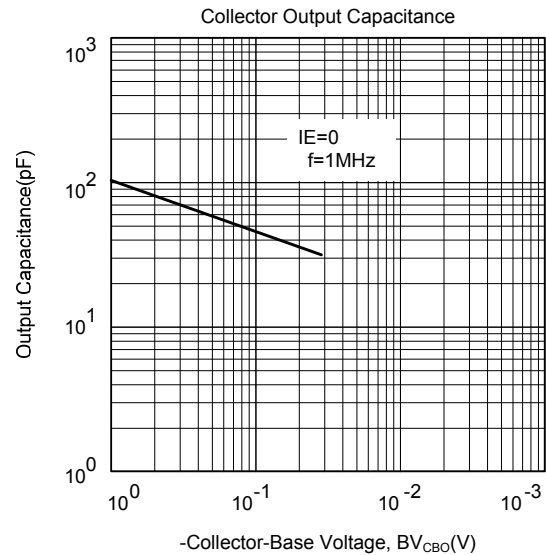
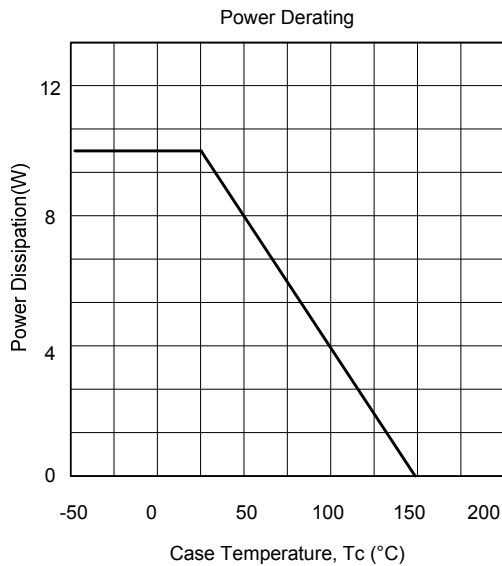
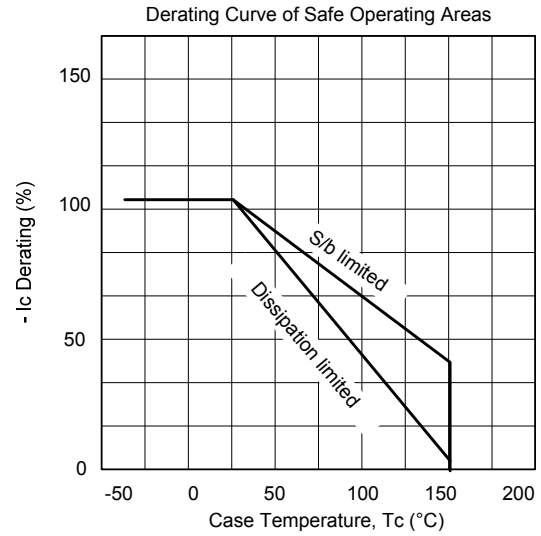
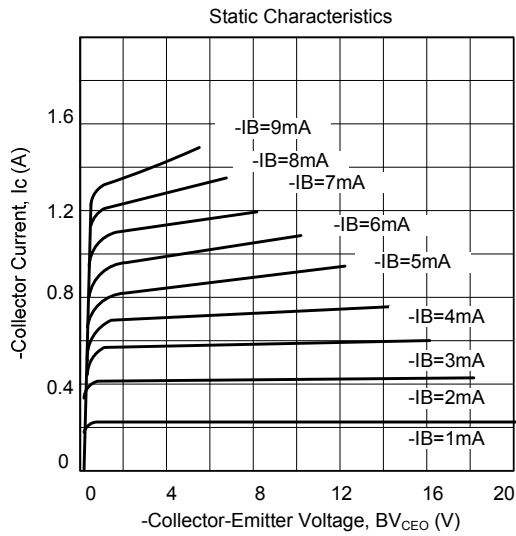
PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Collector-Base Breakdown Voltage	BV_{CBO}	$I_C = -100\mu\text{A}, I_E = 0$	-40			V
Collector-Emitter Breakdown Voltage	BV_{CEO}	$I_C = -1\text{mA}, I_B = 0$	-30			V
Emitter-Base Breakdown Voltage	BV_{EBO}	$I_E = -100\mu\text{A}, I_C = 0$	-5			V
Collector 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)	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: Pulse test: $P_W < 300\mu\text{s}$, Duty Cycle $< 2\%$

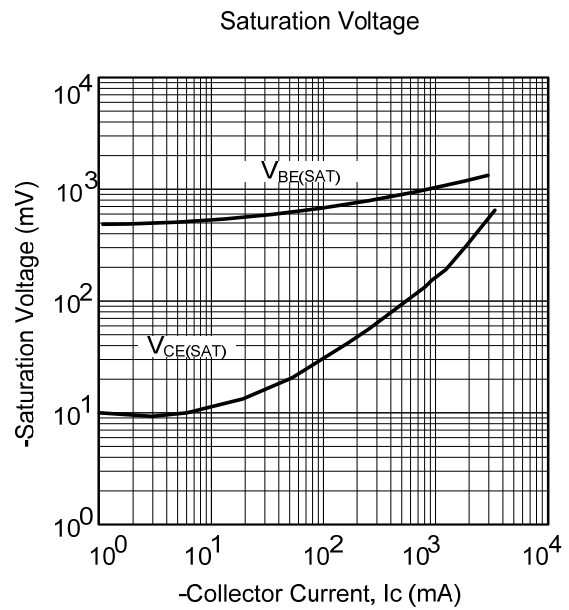
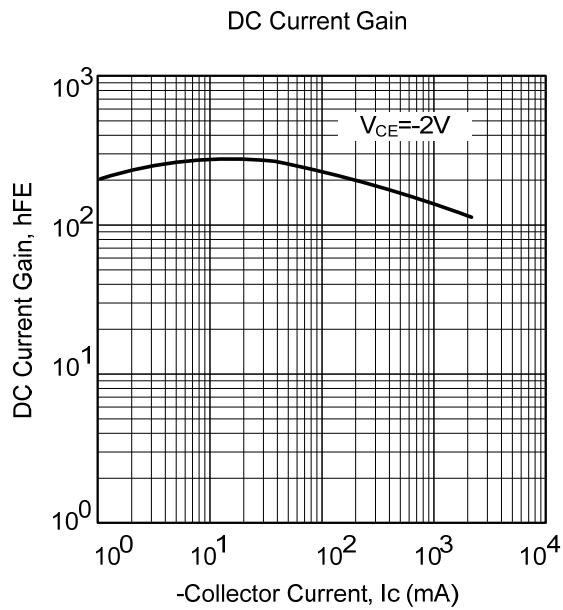
■ CLASSIFICATION OF h_{FE2}

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

TYPICAL CHARACTERISTICS



■ TYPICAL CHARACTERISTICS(Cont.)



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