



B772SS

PNP SILICON TRANSISTOR

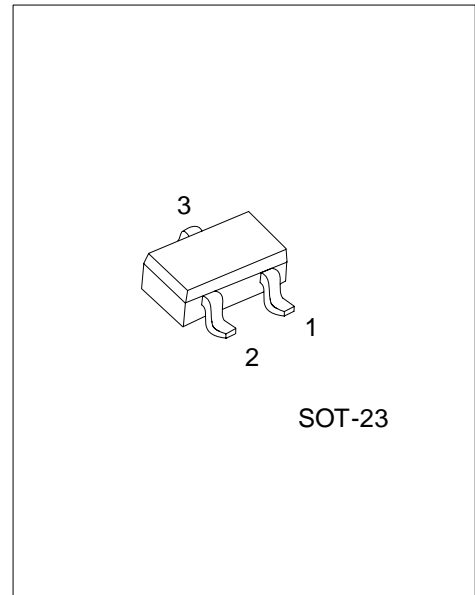
MEDIUM POWER LOW VOLTAGE TRANSISTOR

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



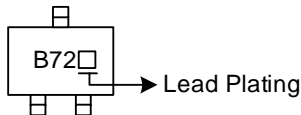
*Pb-free plating product number: B772SSL

ORDERING INFORMATION

Order Number		Package	Pin Assignment			Packing
Normal	Lead Free Plating		1	2	3	
B772SS-x-AE3-R	B772SSL-x-AE3-R	SOT-23	E	B	C	Tape Reel

<p>B772SSL-x-AE3-R</p> <p>(1)Packing Type (2)Package Type (3)Rank (4)Lead Plating</p>	<p>(1) R: Tape Reel (2) AE3: SOT-23 (3) x: refer to Classification of h_{FE2} (4) L: Lead Free Plating, Blank: Pb/Sn</p>
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MARKING



■ ABSOLUTE MAXIMUM RATINGS (Ta = 25)

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
	DC	I_C	-3
Base Current	I_B	-0.6	A
Collector Dissipation	$T_C=25$	P_D	10
	$T_a=25$		350
Junction Temperature	T_J	+150	
Storage Temperature	T_{STG}	-55 ~ +150	

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 (Ta= 25 , unless otherwise specified)

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

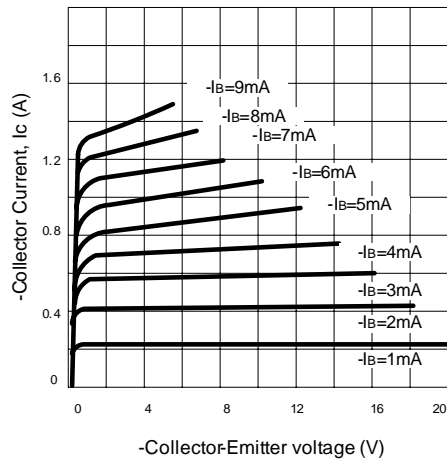
Note 1: Pulse test: $P_w < 300\mu s$, Duty Cycle $< 2\%$

■ CLASSIFICATION OF h_{FE2}

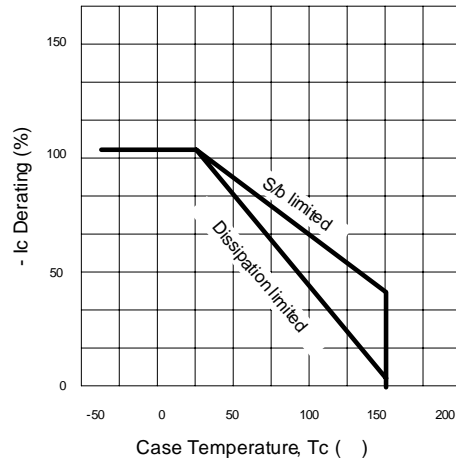
RANK	Q	P	E
RANGE	100 ~ 200	160 ~ 320	200 ~ 400

TYPICAL CHARACTERISTICS

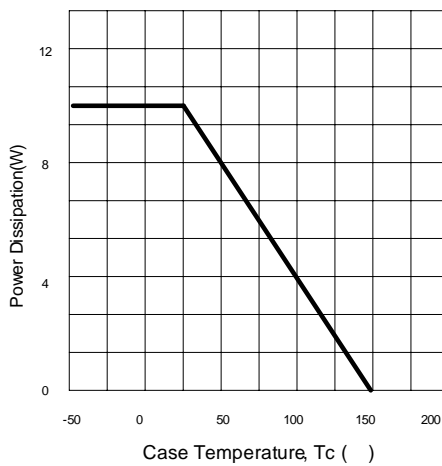
Static Characteristics



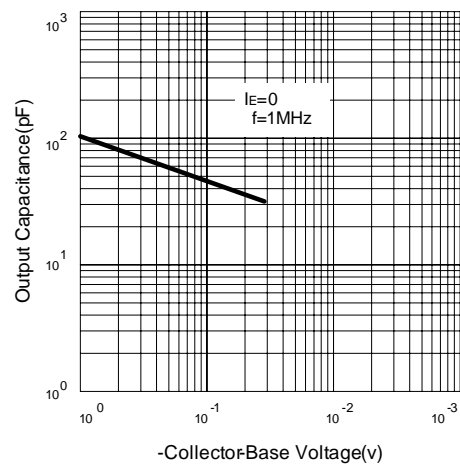
Derating Curve of Safe Operating Areas



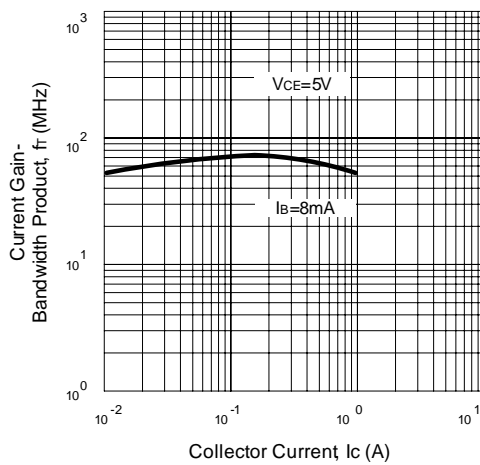
Power Derating



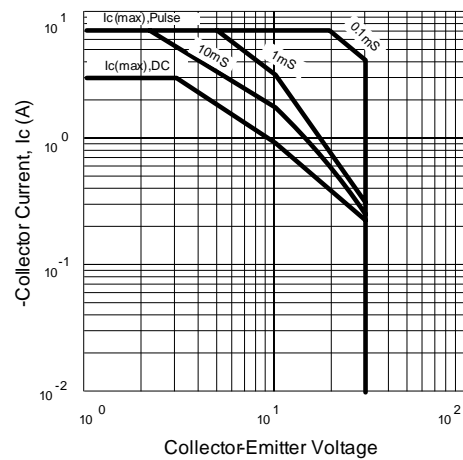
Collector Output Capacitance



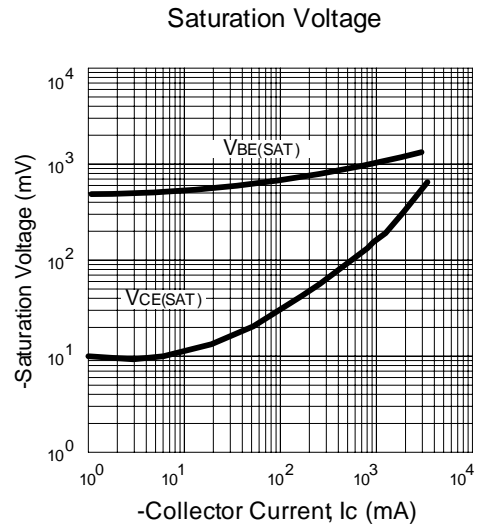
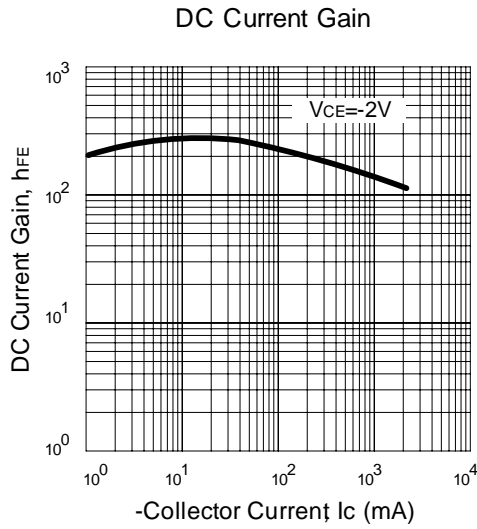
Current Gain - Bandwidth Product



Safe Operating Area



TYPICAL CHARACTERISTICS(Cont.)



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