



B772SS

PNP SILICON TRANSISTOR

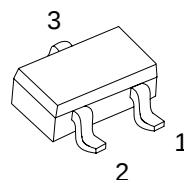
MEDIUM POWER LOW VOLTAGE TRANSISTOR

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



SOT-23

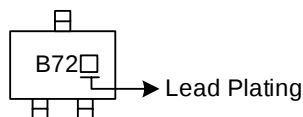
*Pb-free plating product number: B772SSL

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

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



■ ABSOLUTE MAXIMUM RATINGS (Ta = 25 °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	Tc=25	P_D	10	W
	Ta=25		350	mW
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 °C, 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

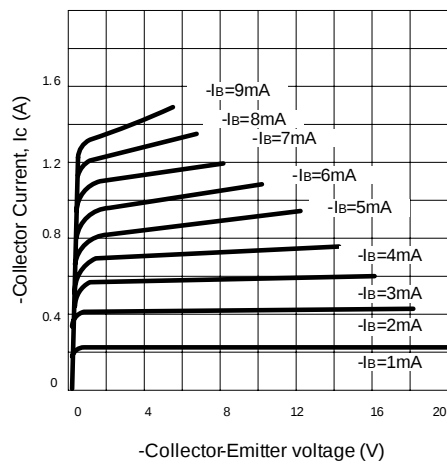
Note 1: Pulse test: $P_w < 300\mu s$, Duty Cycle $< 2\%$

■ CLASSIFICATION OF h_{FE2}

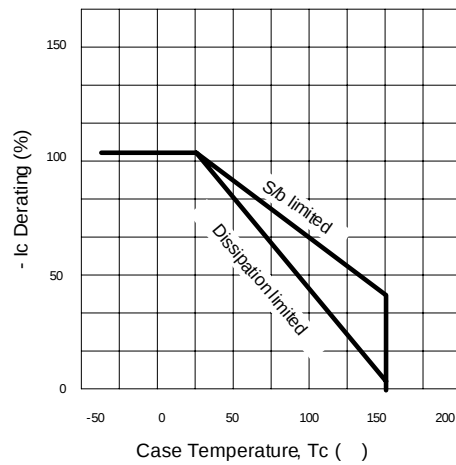
RANK	Q	P	E
RANGE	100 ~ 200	160 ~ 320	200 ~ 400

TYPICAL CHARACTERISTICS

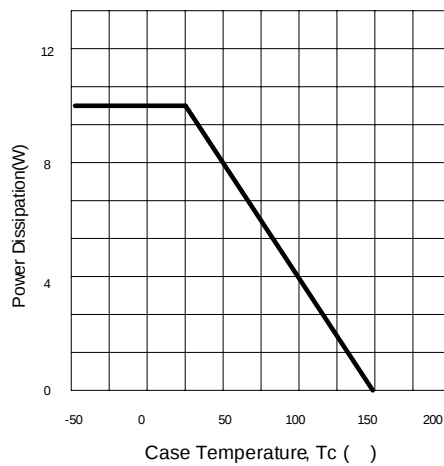
Static Characteristics



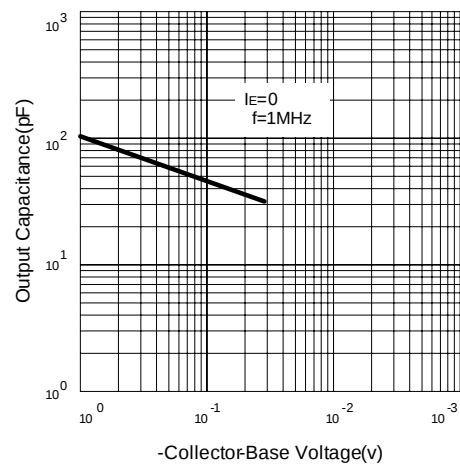
Derating Curve of Safe Operating Areas



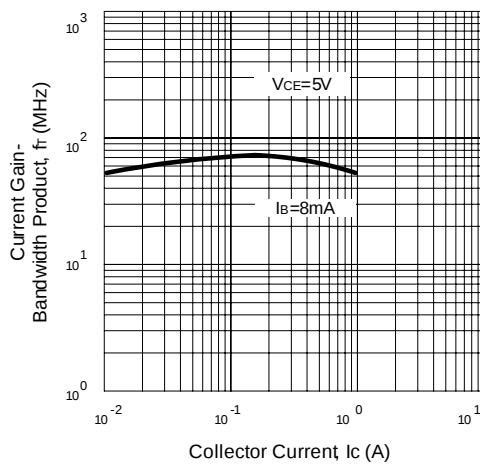
Power Derating



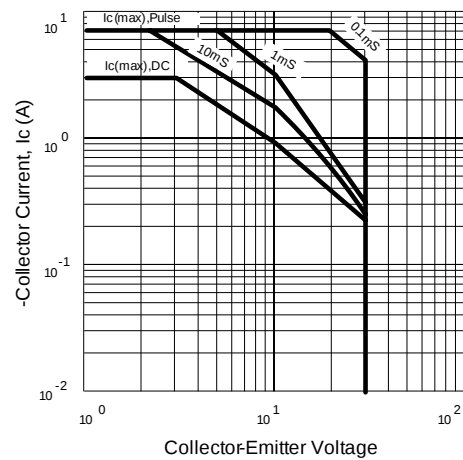
Collector Output Capacitance



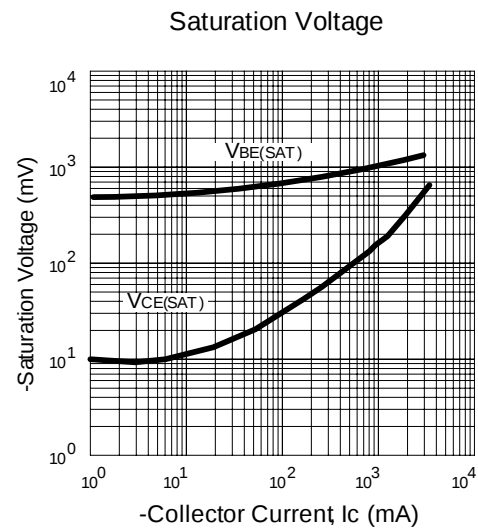
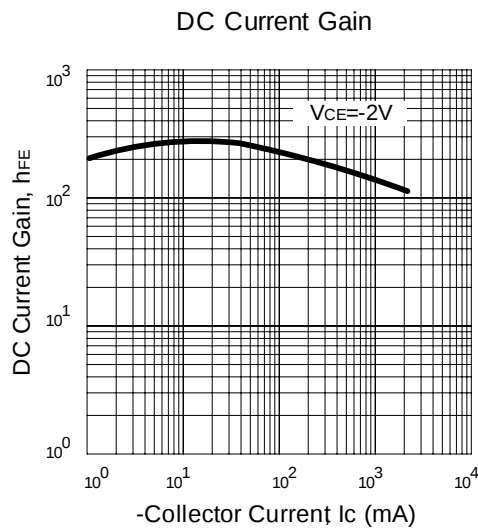
Current Gain - Bandwidth Product



Safe Operating Area



■ TYPICAL CHARACTERISTICS(Cont.)



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