



2SB772S

PNP EPITAXIAL SILICON TRANSISTOR

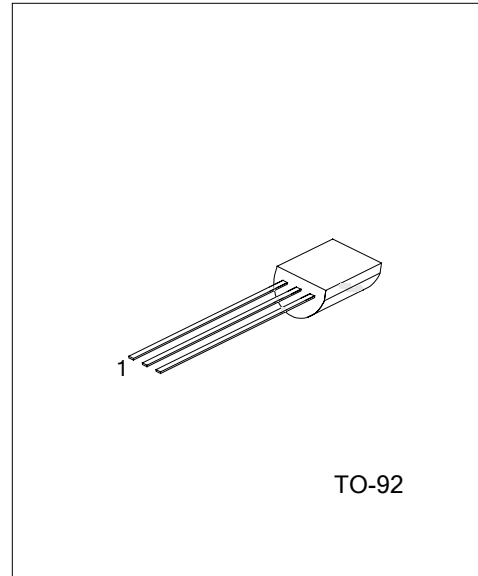
MEDIUM POWER LOW VOLTAGE TRANSISTOR

■ 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



*Pb-free plating product number: 2SB772SL

■ PIN CONFIGURATION

PIN NO.	PIN NAME
1	Emitter
2	Collector
3	Base

■ ORDERING INFORMATION

Order Number		Package	Packing
Normal	Lead free		
2SB772S-T92-B	2SB772SL-T92-B	TO-92	Tape Box
2SB772S-T92-K	2SB772SL-T92-K	TO-92	Bulk

■ ABSOLUTE MAXIMUM RATINGS (Ta = 25°C)

PARAMETER	SYMBOL	RATINGS	UNIT
Collector -Base Voltage	V_{CB0}	-40	V
Collector -Emitter Voltage	V_{CEO}	-30	V
Emitter -Base Voltage	V_{EBO}	-5	V
Peak Collector Current	I_{CM}	-7	A
DC Collector Current	I_C	-3	A
Base Current	I_B	-0.6	A
Power Dissipation	P_D	0.5	W
Operating Temperature	T_J	+150	°C
Storage Temperature	T_{STG}	-40 ~ +150	°C

■ ELECTRICAL CHARACTERISTICS (Ta= 25°C, unless otherwise specified)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Collector Cut-Off Current	I_{CBO}	$V_{CB}=-30V, I_E=0$			-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

Fig.1 Static characteristics

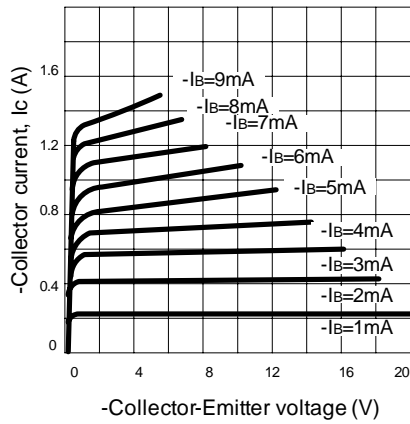


Fig.2 Derating curve of safe operating areas

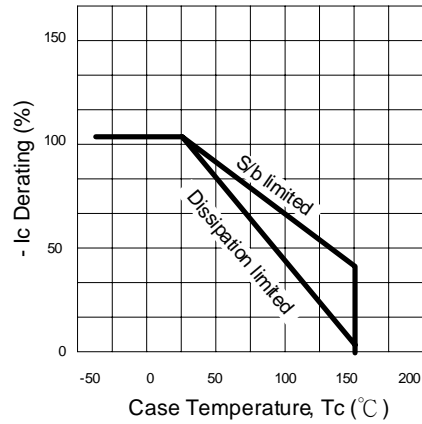


Fig.3 Power Derating

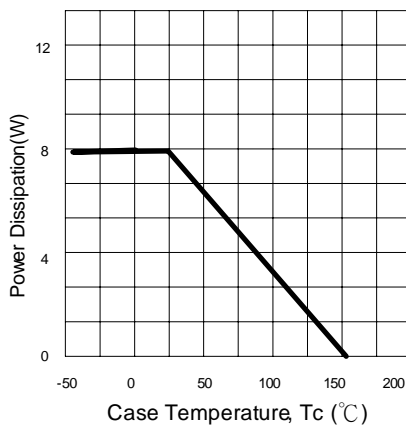


Fig.4 Collector Output capacitance

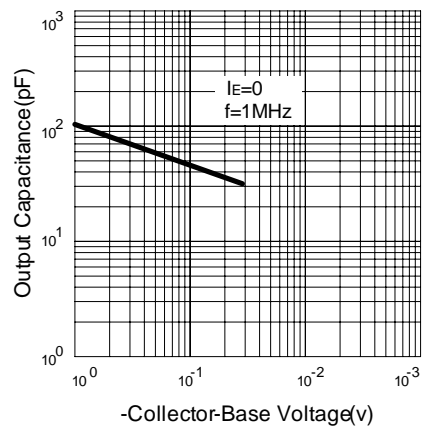


Fig.5 Current gain-bandwidth product

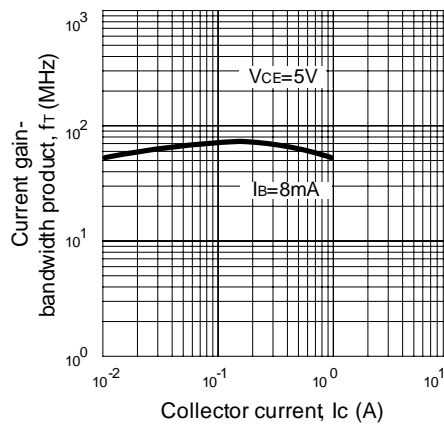
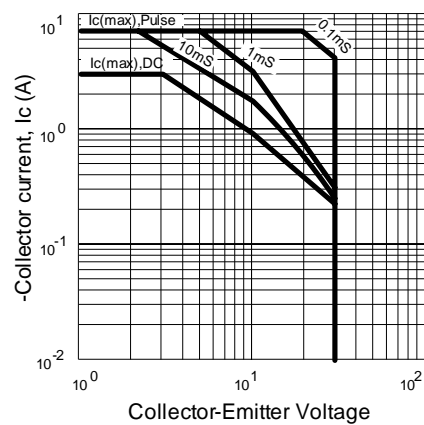


Fig.6 Safe Operating Area



■ TYPICAL CHARACTERISTICS(cont.)

Fig.7 DC current gain

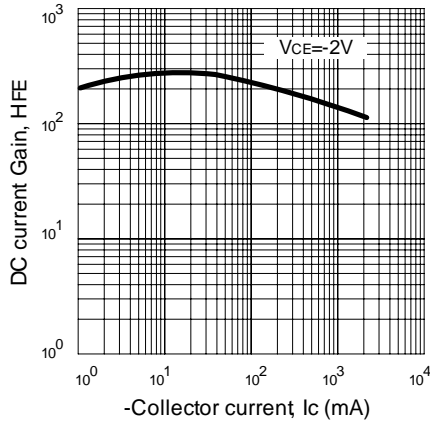
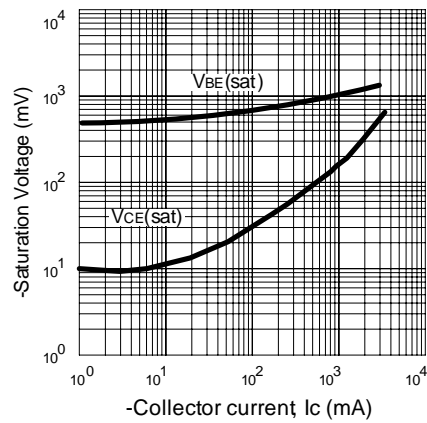


Fig.8 Saturation Voltage



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