



2SB772

PNP SILICON TRANSISTOR

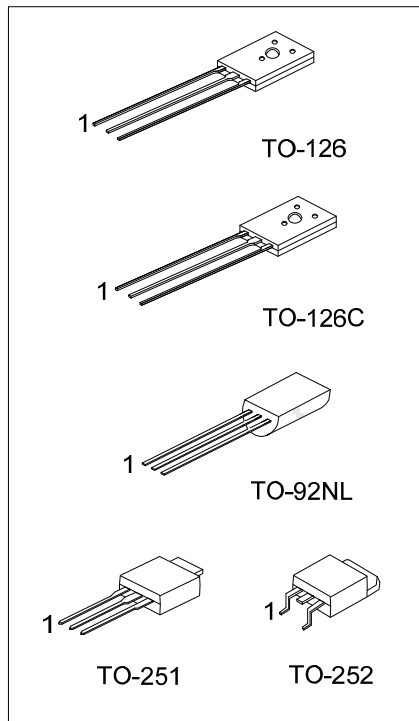
MEDIUM POWER LOW VOLTAGE TRANSISTOR

DESCRIPTION

The UTC **2SB772** 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 2SD882



Lead Free: 2SB772L
 Halogen Free: 2SB772G

ORDERING INFORMATION

Ordering Number			Package	Pin Assignment			Packing
Normal	Lead Free	Halogen Free		1	2	3	
2SB772-x-T60-K	2SB772L-x-T60-K	2SB772G-x-T60-K	TO-126	E	C	B	Bulk
2SB772-x-T6C-K	2SB772L-x-T6C-K	2SB772G-x-T6C-K	TO-126C	E	C	B	Bulk
2SB772-x-TM3-T	2SB772L-x-TM3-T	2SB772G-x-TM3-T	TO-251	B	C	E	Tube
2SB772-x-TN3-R	2SB772L-x-TN3-R	2SB772G-x-TN3-R	TO-252	B	C	E	Tape Reel
2SB772-x-T9N-B	2SB772L-x-T9N-B	2SB772G-x-T9N-B	TO-92NL	E	C	B	Tape Box
2SB772-x-T9N-K	2SB772L-x-T9N-K	2SB772G-x-T9N-K	TO-92NL	E	C	B	Bulk

<p>2SB772L-x-T60-K</p>	<p>(1) Packing Type (2) Package Type (3) Rank (4) Lead Plating</p>	<p>(1) K: Bulk, T: Tube, R: Tape Reel (2) T60: TO-126, T6C: TO-126C, TM3: TO-251, TN3: TO-252, T9N: TO-92NL (3) x: refer to Classification of h_{FE2} (4) G: Halogen Free, L: Lead Free, Blank: Pb/Sn</p>
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■ 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	DC	I_C	-3	A
	Pulse	I_{CP}	-7	A
Base Current		I_B	-0.6	A
Collector Dissipation (Ta=25°C)	TO-92NL	P_C	0.5	W
	TO-251/TO-252/ TO-126/TO-126C		1	W
Junction Temperature		T_J	+150	°C
Storage Temperature		T_{STG}	-55 ~ +150	°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 (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

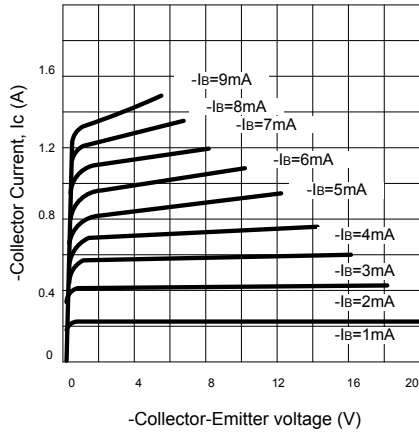
Note 1: Pulse test: $P_W < 300\mu s$, Duty Cycle $< 2\%$

■ CLASSIFICATION OF h_{FE2}

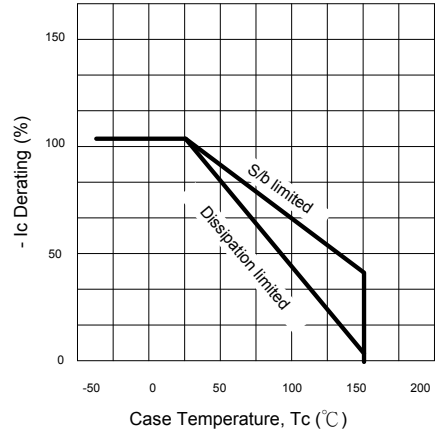
RANK	Q	P	E
RANGE	100 ~ 200	160 ~ 320	200 ~ 400

TYPICAL CHARACTERISTICS

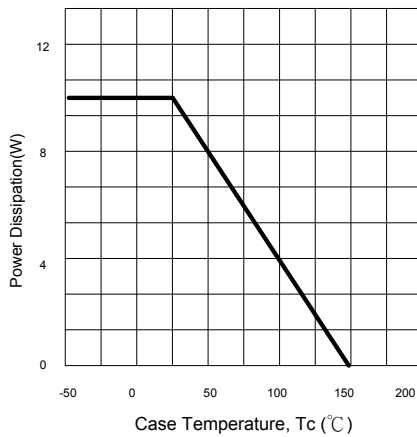
Static Characteristics



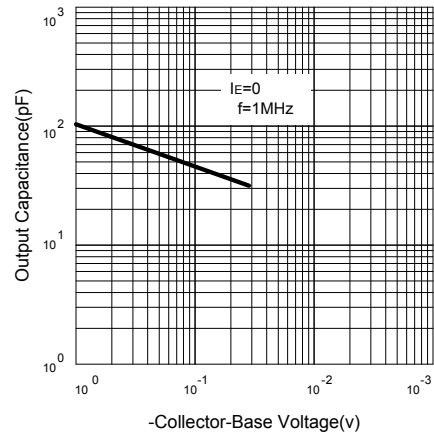
Derating Curve of Safe Operating Areas



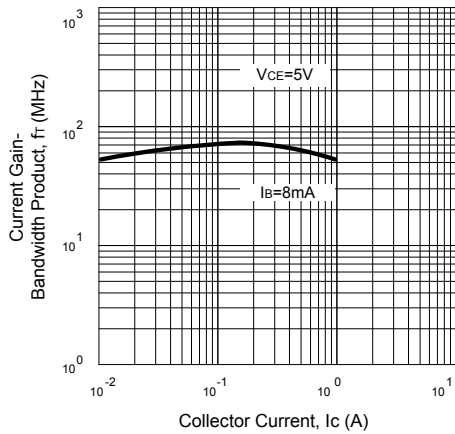
Power Derating



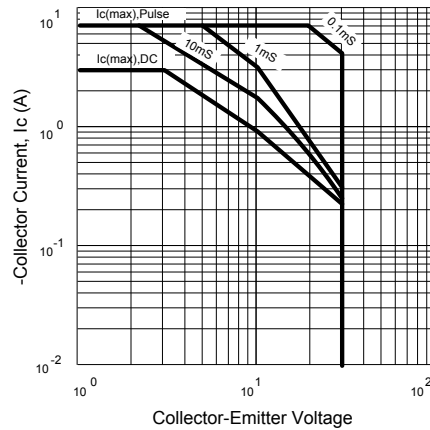
Collector Output Capacitance



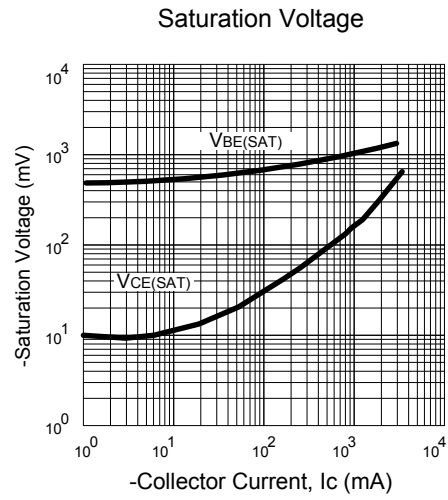
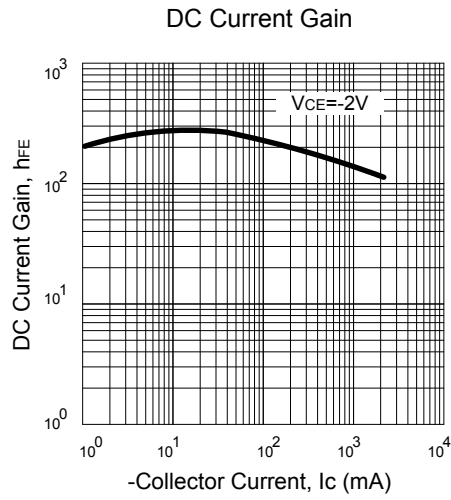
Current Gain-Bandwidth Product



Safe Operating Area



■ TYPICAL CHARACTERISTICS(Cont.)



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