



2SB1188

PNP SILICON TRANSISTOR

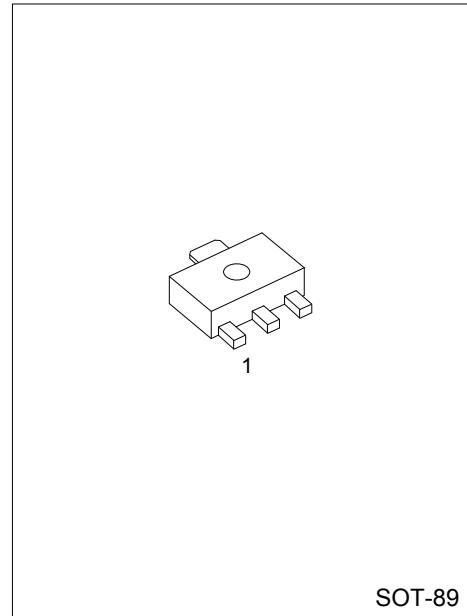
MEDIUM POWER LOW VOLTAGE TRANSISTOR

DESCRIPTION

The UTC **2SB1188** 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



Lead-free: 2SB1188L
 Halogen-free: 2SB1188G

ORDERING INFORMATION

Ordering Number			Package	Pin Assignment			Packing
Normal	Lead Free Plating	Halogen Free		1	2	3	
2SB1188-x-AB3-R	2SB1188L-x-AB3-R	2SB1188G-x-AB3-R	SOT-89	B	C	E	Tape Reel

<p>2SB1188L-x-AB3-R</p>	<p>(1)Packing Type</p> <p>(2)Package Type</p> <p>(3)Rank</p> <p>(4)Lead Plating</p>	<p>(1) R: Tape Reel</p> <p>(2) AB3: SOT-89</p> <p>(3) x: refer to Classification of h_{FE2}</p> <p>(4) G: Halogen Free, L: Lead Free Plating, 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
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
Junction Temperature	T_J	+150	°C
Storage Temperature	T_{STG}	-40~+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)

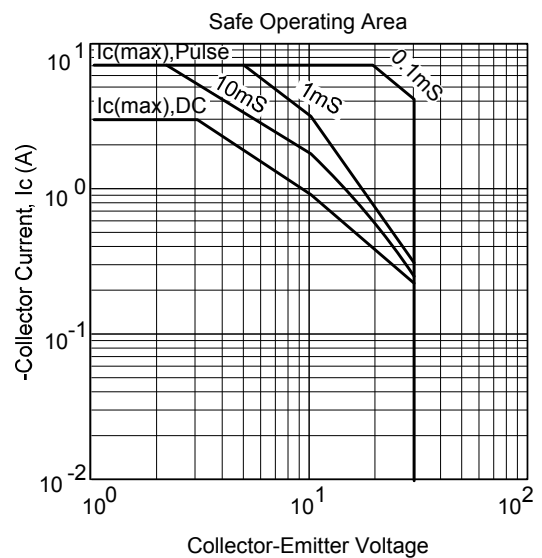
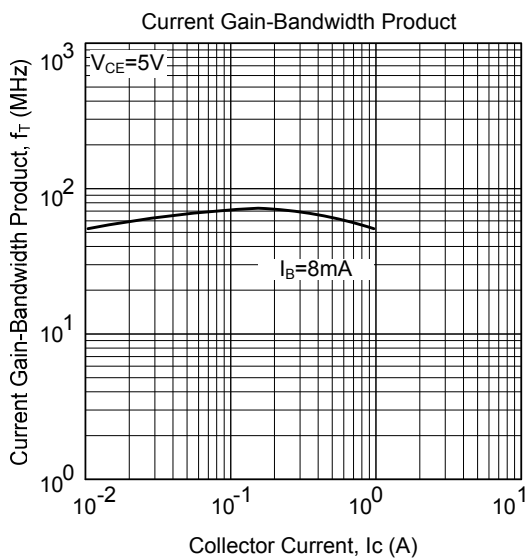
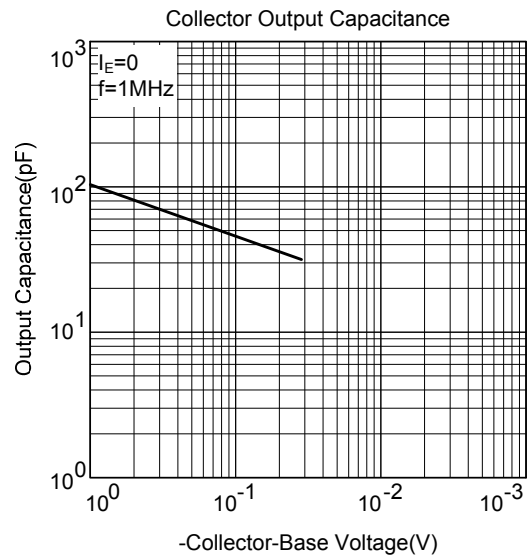
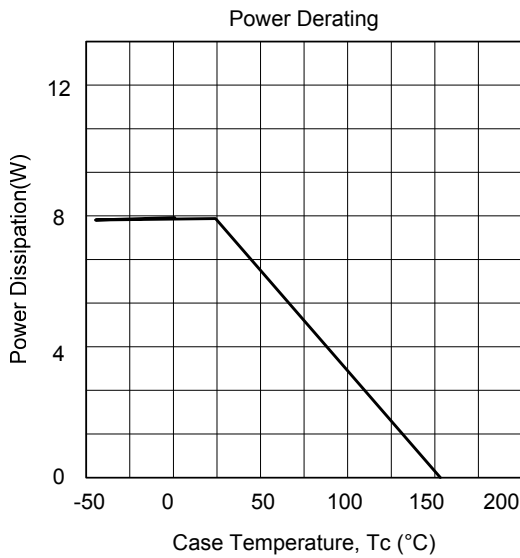
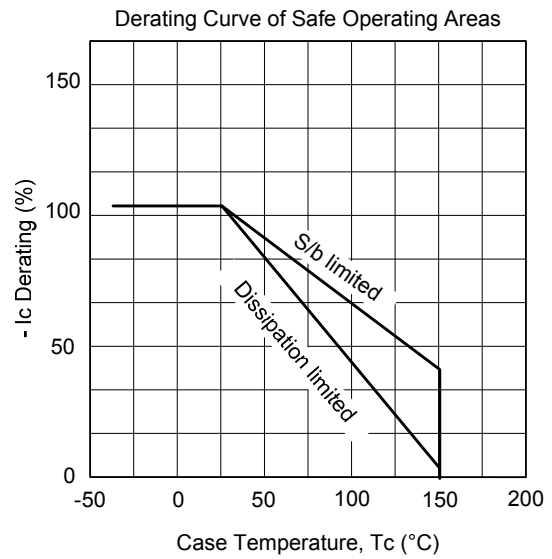
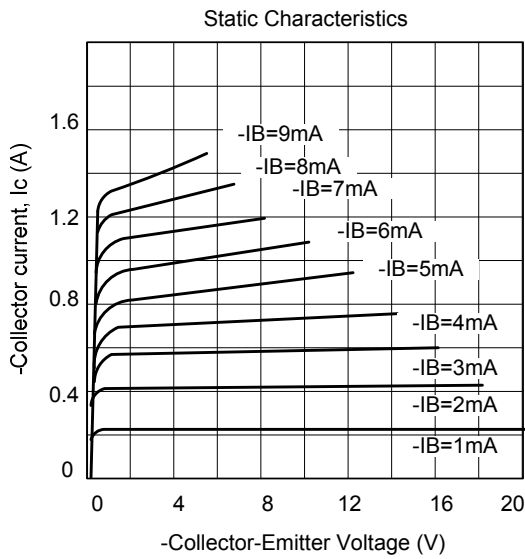
PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Collector Base Breakdown Voltage	BV_{CBO}	$I_C = -50\mu A$	-40			V
Collector Emitter Breakdown Voltage	BV_{CEO}	$I_C = -1mA$	-30			V
Emitter Base Breakdown Voltage	BV_{EBO}	$I_E = -50\mu A$	-5			V
Collector Cut-Off Current	I_{CBO}	$V_{CB} = -30V, I_E = 0$			-1	μA
Emitter Cut-Off Current	I_{EBO}	$V_{EB} = -4V, I_C = 0$			-1	μA
DC Current Gain(Note)	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: Pulse test: $P_w < 300\mu s$, Duty Cycle $< 2\%$

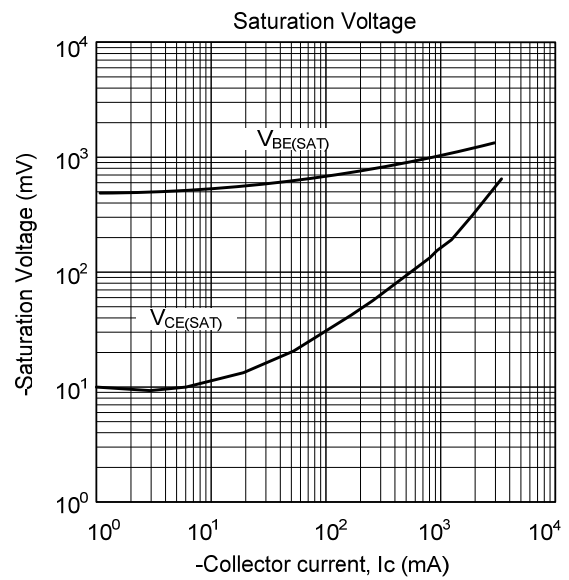
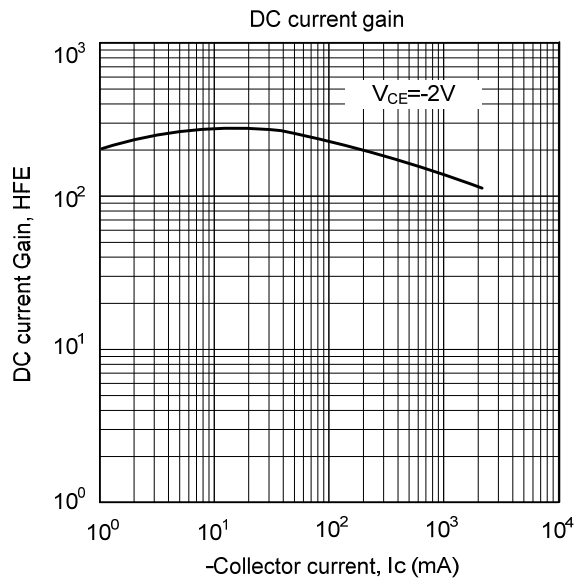
■ CLASSIFICATION OF h_{FE2}

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

TYPICAL CHARACTERISTICS



■ TYPICAL CHARACTERISTICS(cont.)



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