



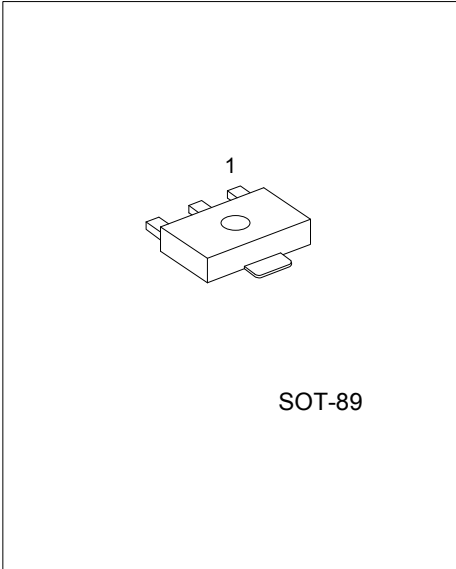
2SB1386

PNP SILICON TRANSISTOR

LOW FREQUENCY PNP TRANSISTOR

■ FEATURES

- * Excellent DC current gain characteristics
- * Low $V_{CE(SAT)}$
 $V_{CE(SAT)} = -0.35V$ (Typ)
 $(I_C/I_B = -4A/-0.1A)$



■ ORDERING INFORMATION

Order Number		Package	Pin Assignment			Packing
Lead Free	Halogen Free		1	2	3	
2SB1386L-x-AB3-R	2SB1386G-x-AB3-R	SOT-89	B	C	E	Tape Reel

<p>2SB1386L-x-AB3-R</p>	<p>(1) R: Tape Reel (2) AB3: SOT-89 (3) x: refer to Classification of h_{FE} (4) G: Halogen Free L: Lead Free</p>
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■ ABSOLUTE MAXIMUM RATINGS (Ta=25°C , unless otherwise specified)

PARAMETER	SYMBOL	RATINGS	UNIT
Collector-Base Voltage	V_{CBO}	-30	V
Collector-Emitter Voltage	V_{CEO}	-20	V
Emitter-Base Voltage	V_{EBO}	-6	V
Collector Current (DC)	$I_{C(DC)}$	-5	A
Collector Current (Pulse)(Note1)	$I_{C(PULSE)}$	-10	A
Collector Power Dissipation	P_C	0.5	W
Junction Temperature	T_J	150	°C
Storage Temperature	T_{STG}	-55 ~ +150	°C

Note 1. Single pulse, Pw=10ms

2. 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.

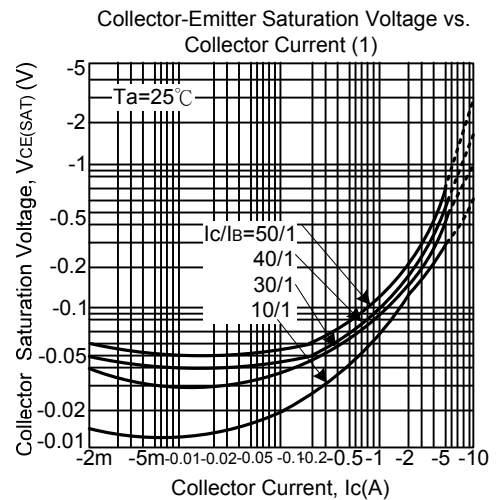
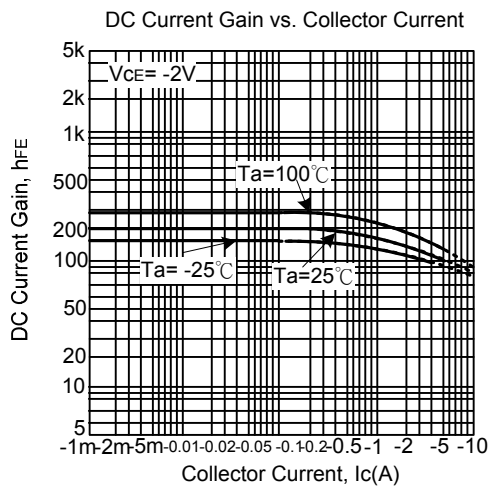
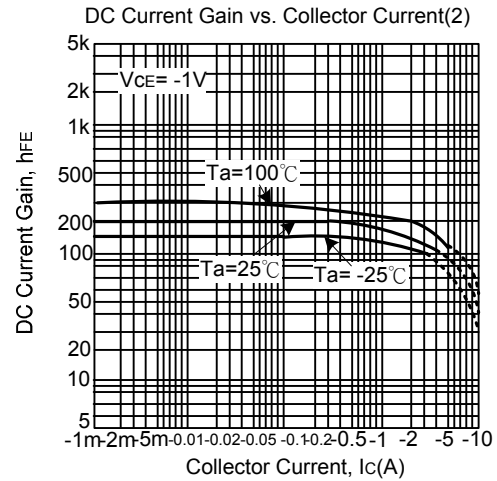
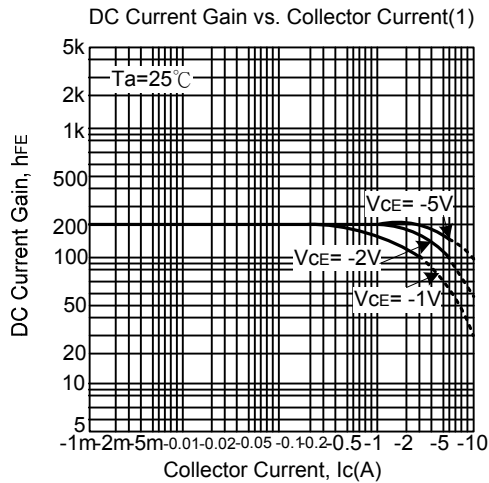
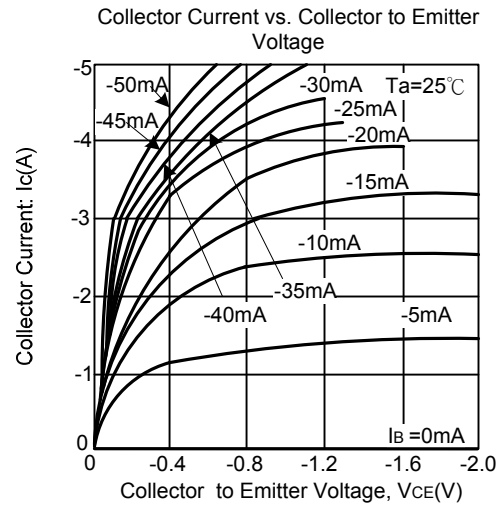
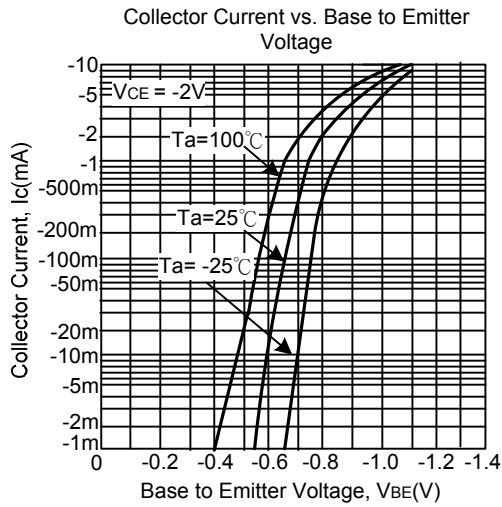
■ ELECTRICAL CHARACTERISTICS(Ta=25°C, unless otherwise specified)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Collector Base Breakdown Voltage	BV_{CBO}	$I_C = -50\mu A$	-30			V
Collector Emitter Breakdown Voltage	BV_{CEO}	$I_C = -1mA$	-20			V
Emitter Base Breakdown Voltage	BV_{EBO}	$I_E = -50\mu A$	-6			V
Collector-Emitter Saturation Voltage	$V_{CE(SAT)}$	$I_C/I_B = -4A/-0.1A$			-1.0	V
Collector Cut-off Current	I_{CBO}	$V_{CB} = -20V$			-0.5	μA
Emitter Cut-off Current	I_{EBO}	$V_{EB} = -5V$			-0.5	μA
DC Current Gain	h_{FE}	$V_{CE} = -2V, I_C = -0.5A$	82		390	
Transition Frequency	f_T	$V_{CE} = -6V, I_E = 50mA, f = 30MHz$		120		MHz
Output Capacitance	C_{ob}	$V_{CB} = -20V, I_E = 0A, f = 1MHz$		60		pF

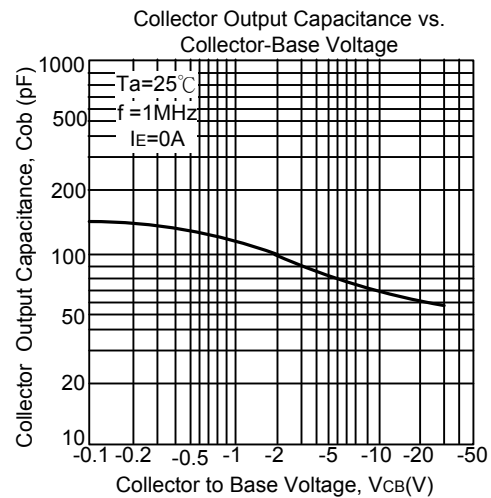
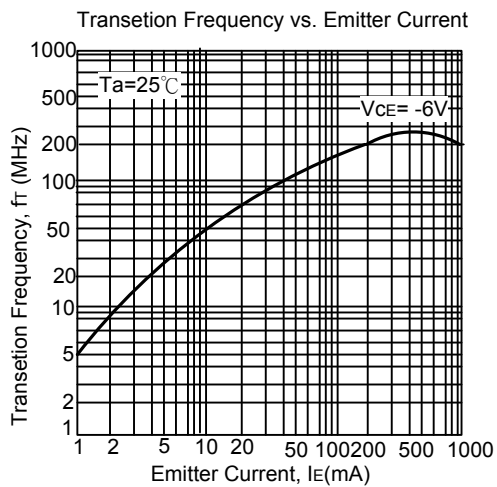
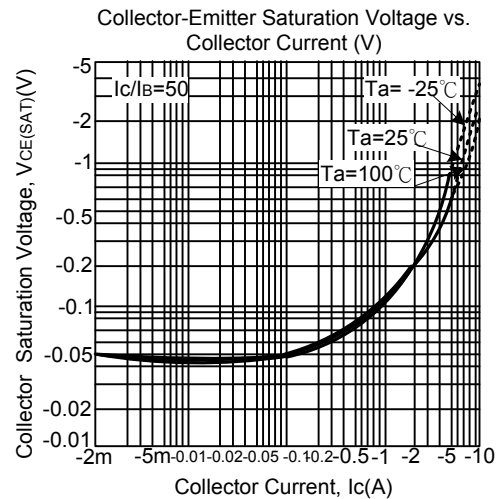
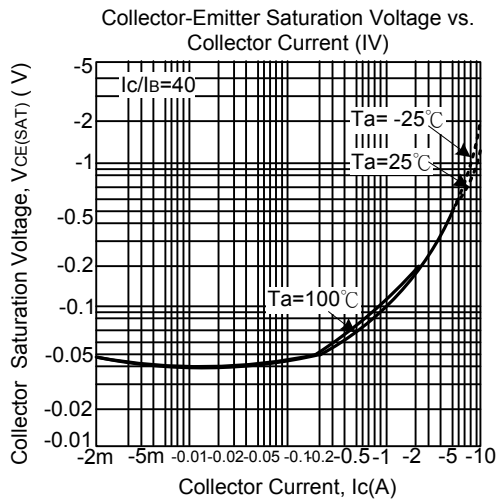
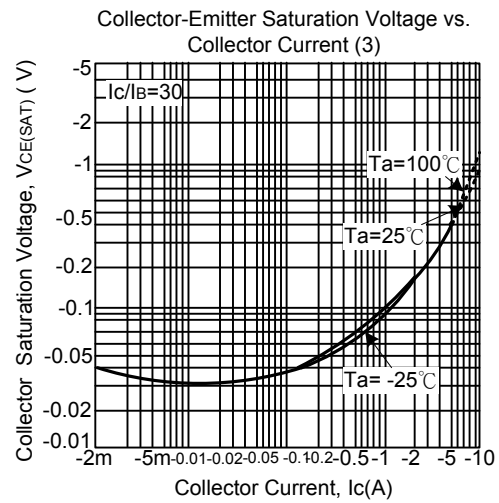
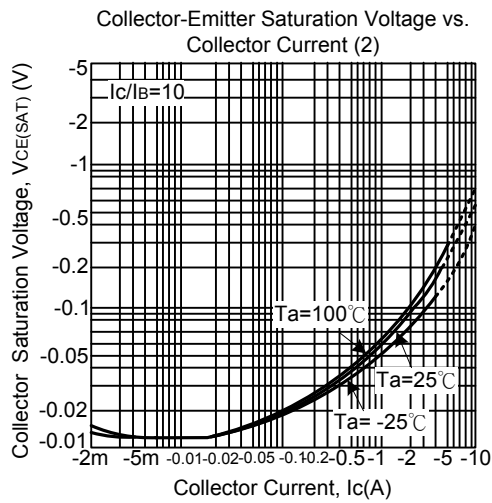
■ CLASSIFICATION OF h_{FE}

RANK	P	Q	R
RANGE	82-180	120-270	180-390

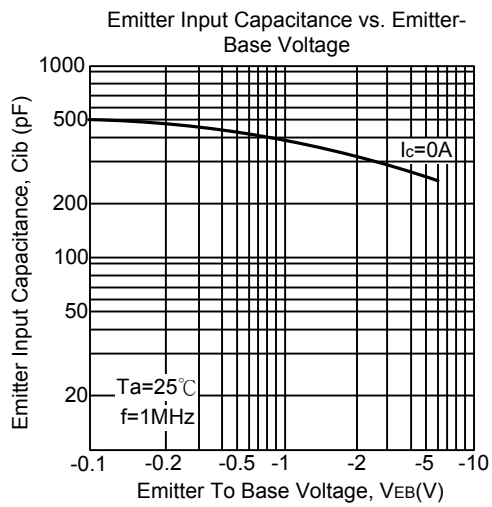
TYPICAL CHARACTERISTICS



■ TYPICAL CHARACTERISTICS(Cont.)



■ TYPICAL CHARACTERISTICS(Cont.)



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