



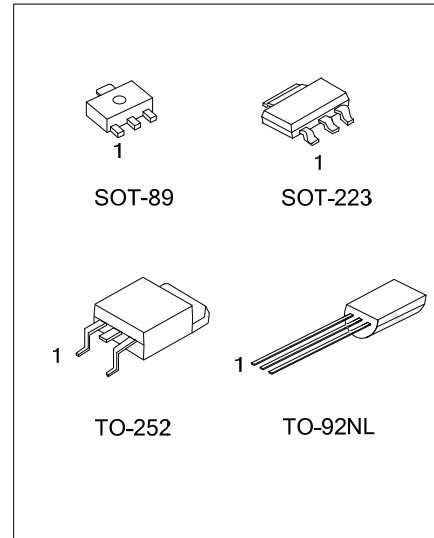
# 2SA1797

## PNP SILICON TRANSISTOR

### POWER TRANSISTOR

■ **FEATURES**

- \* Low Saturation Voltage.  
 $V_{CE(SAT)} = -0.35V(MAX)$  at  $I_C / I_B = -1A / -50mA$
- \* Excellent DC Current Gain Characteristics



■ **ORDERING INFORMATION**

Ordering Number		Package	Pin Assignment			Packing
Lead Free	Halogen Free		1	2	3	
2SA1797L-x-AA3-R	2SA1797G-x-AA3-R	SOT-223	B	C	E	Tape Reel
2SA1797L-x-AB3-R	2SA1797G-x-AB3-R	SOT-89	B	C	E	Tape Reel
2SA1797L-x-T9N-B	2SA1797G-x-T9N-B	TO-92NL	E	C	B	Tape Box
2SA1797L-x-T9N-K	2SA1797G-x-T9N-K	TO-92NL	E	C	B	Bulk
2SA1797L-x-TN3-R	2SA1797G-x-TN3-R	TO-252	B	C	E	Tape Reel

Note: Pin Assignment: B: Base C: Collector E: Emitter

<p>2SA1797G-x-AA3-R</p> <p>(1)Packing Type          (2)Package Type          (3)Rank          (4)Green Package</p>	<p>(1) R: Tape Reel, B: Tape Box, K: Bulk          (2) AA3: SOT-223, AB3: SOT-89, T9N: TO-92NL, TN3: TO-252          (3) refer to Classification of hFE          (4) G: Halogen Free and Lead Free, L: Lead Free</p>
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■ **MARKING**

<p style="text-align: center;">SOT-89</p> <p>Date Code          L: Lead Free          G: Halogen Free</p>	<p style="text-align: center;">SOT-223</p> <p>L: Lead Free          G: Halogen Free          Date Code</p>
<p style="text-align: center;">TO-252</p> <p>UTC          2SA1797          Lot Code          L: Lead Free          G: Halogen Free          Date Code</p>	<p style="text-align: center;">TO-92NL</p> <p>UTC          2SA1797          L: Lead Free          G: Halogen Free          Date Code</p>

■ ABSOLUTE MAXIMUM RATINGS ( $T_A=25^\circ\text{C}$ , unless otherwise specified)

PARAMETER		SYMBOL	RATINGS	UNIT
Collector-Base Voltage		$V_{CBO}$	-50	V
Collector-Emitter Voltage		$V_{CEO}$	-50	V
Emitter-Base Voltage		$V_{EBO}$	-6	V
Collector Current	DC	$I_C$	-2	A
	PULSE(Note 2)		-5	A
Collector Power Dissipation	TO-92NL	$P_C$	0.6	W
	SOT-223		0.8 (Note 3)	W
	SOT-89		0.9 (Note 3)	W
	TO-252		1.9 (Note 3)	W
Junction Temperature		$T_J$	+150	$^\circ\text{C}$
Storage Temperature		$T_{STG}$	-55 ~ +150	$^\circ\text{C}$

Notes: 1. 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.

2. Single pulse,  $P_W=10\text{ms}$ .

3. Device mounted on FR-4 PCB with minimum recommended pad layout.

■ ELECTRICAL CHARACTERISTICS ( $T_A=25^\circ\text{C}$ , unless otherwise specified)

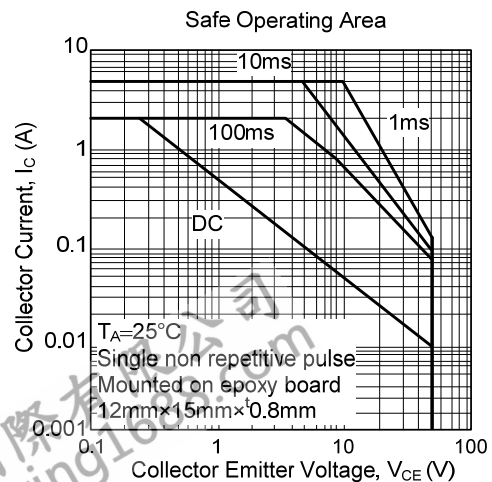
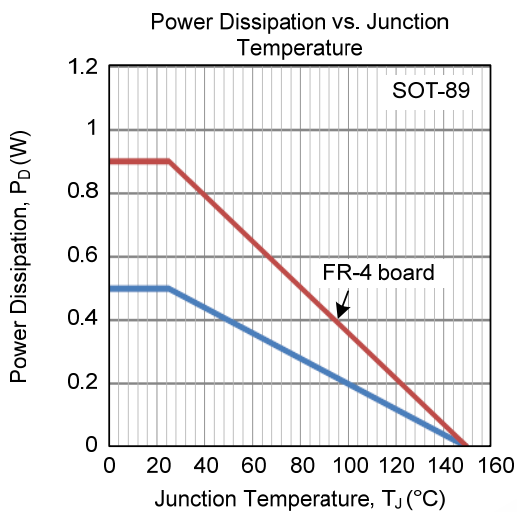
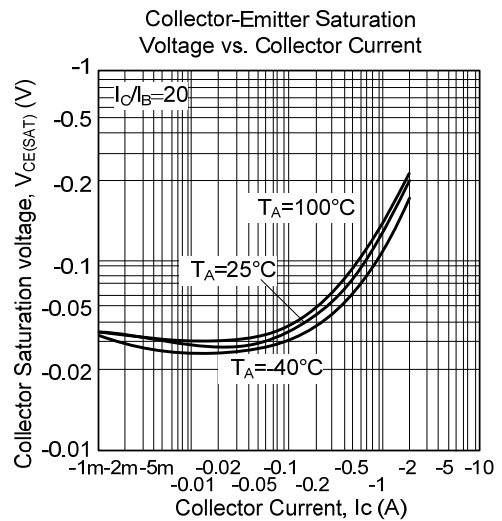
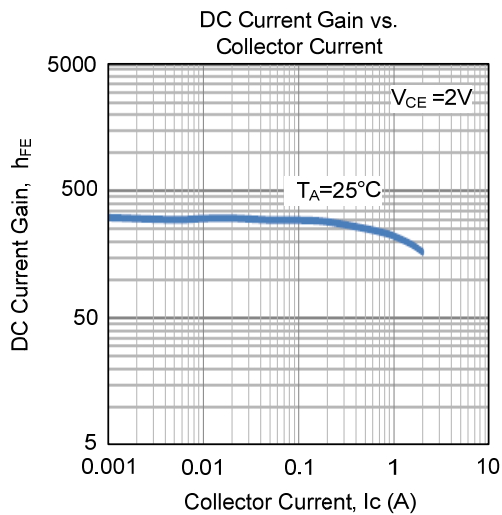
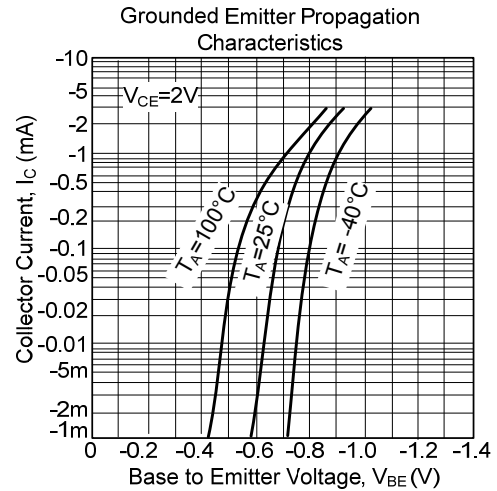
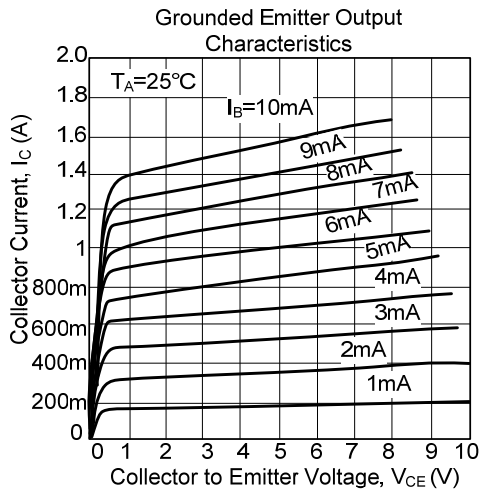
PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Collector-Base Breakdown Voltage	$BV_{CBO}$	$I_C = -50\mu\text{A}$	-50			V
Collector-Emitter Breakdown Voltage	$BV_{CEO}$	$I_C = -1\text{mA}$	-50			V
Emitter-Base Breakdown Voltage	$BV_{EBO}$	$I_E = -50\mu\text{A}$	-6			V
Collector Cutoff Current	$I_{CBO}$	$V_{CB} = -50\text{V}$			-0.1	$\mu\text{A}$
Emitter Cutoff Current	$I_{EBO}$	$V_{EB} = -5\text{V}$			-0.1	$\mu\text{A}$
Collector-Emitter Saturation Voltage	$V_{CE(SAT)}$	$I_C/I_B = -1\text{A}/-50\text{mA}$ (Note)		-0.15	-0.35	V
DC Current Gain	$h_{FE}$	$V_{CE} = -2\text{V}$ , $I_C = -0.5\text{A}$ (Note)	120		400	
Transition Frequency	$f_T$	$V_{CE} = -2\text{V}$ , $I_E = 0.5\text{A}$ , $f = 100\text{MHz}$		200		MHz
Output Capacitance	$C_{OB}$	$V_{CB} = -10\text{V}$ , $I_E = 0\text{A}$ , $f = 1\text{MHz}$		36		pF

Note: Measured using pulse current.

■ CLASSIFICATION OF  $h_{FE}$

RANK	A	B
RANGE	120-240	200-400

## TYPICAL CHARACTERISTICS



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