



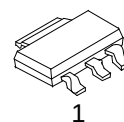
2SD1898

NPN SILICON TRANSISTOR

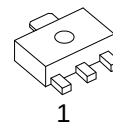
POWER TRANSISTOR

■ FEATURES

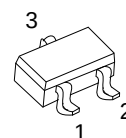
- *High $V_{CE0} = 80V$
- *High $I_C = 1A$ (DC)
- *Good h_{FE} linearity
- *Low $V_{CE(SAT)}$
- *Complements the 2SB1260



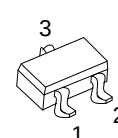
SOT-223



SOT-89



SOT-23
(EIAJ SC-59)



SOT-23-3
(JEDEC TO-236)

■ ORDERING INFORMATION

Ordering Number		Package	Pin Assignment			Packing
Lead Free	Halogen Free		1	2	3	
2SD1898L-x-AA3-R	2SD1898G-x-AA3-R	SOT-223	B	C	E	Tape Reel
2SD1898L-x-AB3-R	2SD1898G-x-AB3-R	SOT-89	B	C	E	Tape Reel
2SD1898L-x-AE2-R	2SD1898G-x-AE2-R	SOT-23-3	B	E	C	Tape Reel
2SD1898L-x-AE3-R	2SD1898G-x-AE3-R	SOT-23	B	E	C	Tape Reel

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

2SD1898G-x-AB3-R (1) Packing Type (2) Package Type (3) Rank (4) Green Package	(1) R: Tape Reel (2) AA3: SOT-223, AB3: SOT-89, AE2: SOT-23-3 AE3: SOT-23 (3) x: refer to Classification of h_{FE} (4) G: Halogen Free and Lead Free, L: Lead Free
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■ MARKING

SOT-223	SOT-89	SOT-23-3 / SOT-23
2SD1898 L: Lead Free G: Halogen Free Date Code	2SD1898 Date Code L: Lead Free G: Halogen Free	D98 L: Lead Free G: Halogen Free

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

PARAMETER		SYMBOL	RATING	UNIT
Collector-Base Voltage		V_{CBO}	100	V
Collector-Emitter Voltage		V_{CEO}	80	V
Emitter-Base Voltage		V_{EBO}	5	V
Collector Current(DC)		I_C	1	A
Collector Current(PULSE) (Note 2)		I_{CP}	2	A
Collector Power Dissipation (Note 3)	SOT-223	P_C	1000	mW
	SOT-89		500	mW
	SOT-23-3		300	mW
	SOT-23			
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. Duty = 1/2, $P_W = 200\text{ms}$

3. When mounted on a 40×40×0.7 mm ceramic board.

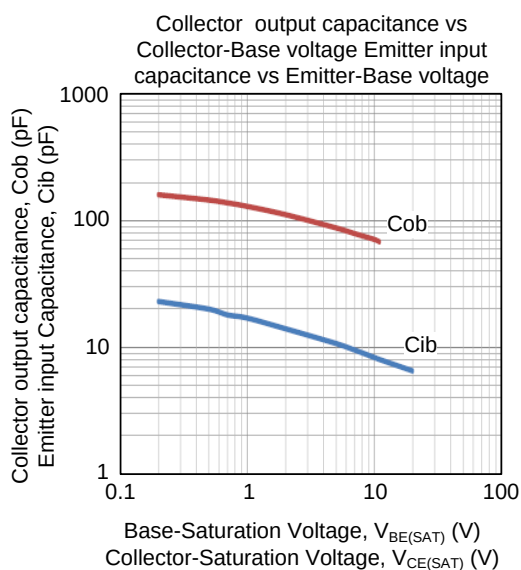
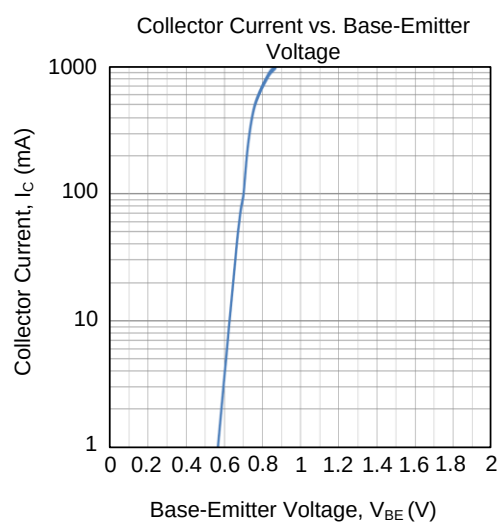
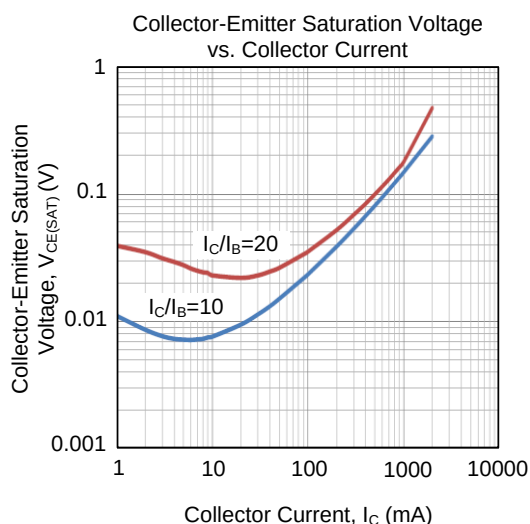
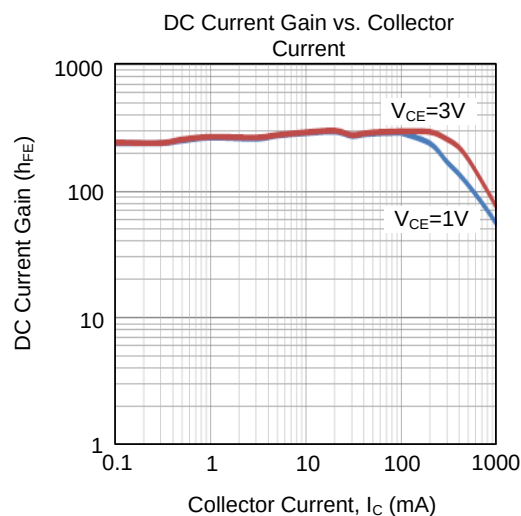
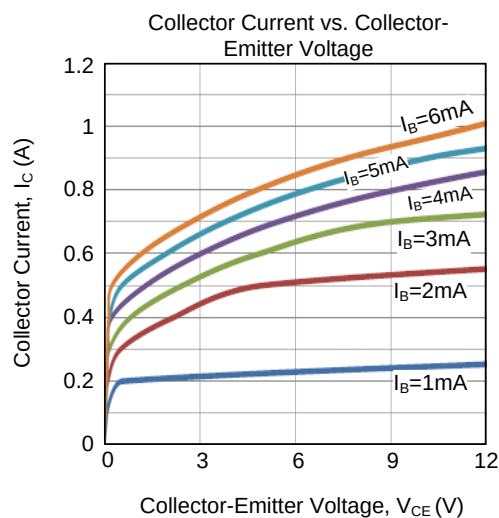
■ **ELECTRICAL CHARACTERISTICS** ($T_A=25^{\circ}\text{C}$, unless otherwise specified)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Collector Base Breakdown Voltage	BV_{CBO}	$I_C = 50\mu\text{A}$	100			V
Collector Emitter Breakdown Voltage	BV_{CEO}	$I_C = 1\text{mA}$	80			V
Emitter Base Breakdown Voltage	BV_{EBO}	$I_E = 50\mu\text{A}$	5			V
Collector Cut-Off Current	I_{CBO}	$V_{CB} = 80\text{V}$, $I_E = 0\text{A}$			1	μA
Emitter Cut-Off Current	I_{EBO}	$V_{EB} = 4\text{V}$, $I_C = 0\text{A}$			1	μA
DC Current Transfer Ratio	h_{FE}	$V_{CE} = 3\text{V}$, $I_C = 0.5\text{A}$	82		390	
Collector-Emitter Saturation Voltage	$V_{CE(SAT)}$	$I_C = 500\text{mA}$, $I_B = 20\text{mA}$		0.15	0.4	V
Transition Frequency	f_T	$V_{CE} = 10\text{V}$, $I_E = -50\text{mA}$, $f = 100\text{MHz}$		100		MHz
Output Capacitance	C_{OB}	$V_{CB} = 10\text{V}$, $I_E = 0\text{A}$, $f = 1\text{MHz}$		20		pF

■ **CLASSIFICATION OF h_{FE}**

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

■ TYPICAL CHARACTERISTICS



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