



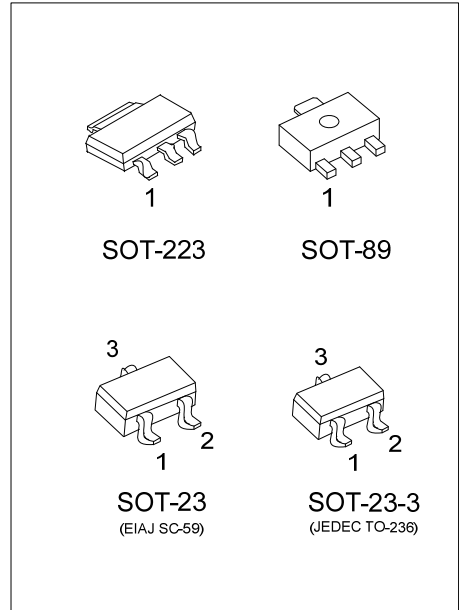
2SD1898

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



■ 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

<p>2SD1898G-x-AB3-R</p> <p>(1) Packing Type (2) Package Type (3) Rank (4) Green Package</p>	<p>(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</p>
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■ MARKING

SOT-223	SOT-89	SOT-23-3 / SOT-23

■ ABSOLUTE MAXIMUM RATINGS (T_A=25°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	°C
Storage Temperature		T _{STG}	-55 ~ +150	°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 = 200ms

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

■ THERMAL DATA

PARAMETER		SYMBOL	RATINGS	UNIT
Junction to Ambient	SOT-223	θ _{JA}	125	°C/W
	SOT-89		250	°C/W
	SOT-23-3		416.67	°C/W
	SOT-23			

Notes: Device mounted on FR-4 substrate PC board, 2oz copper, with 1inch square copper plate.

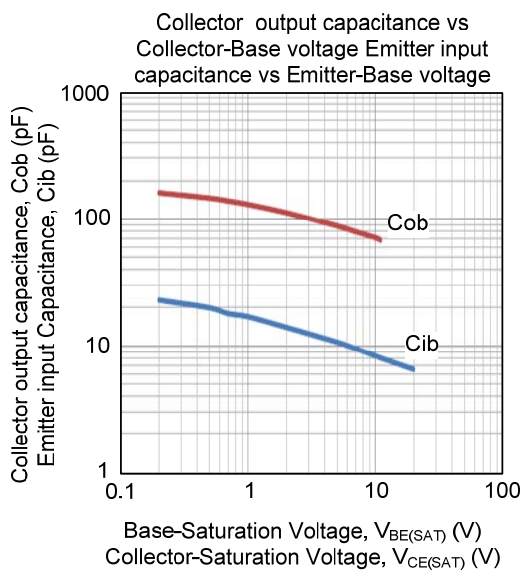
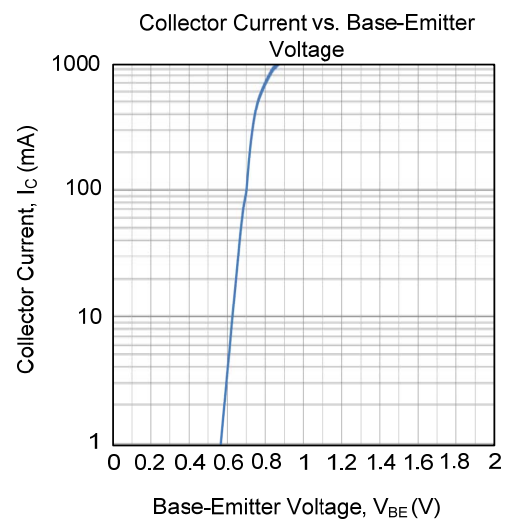
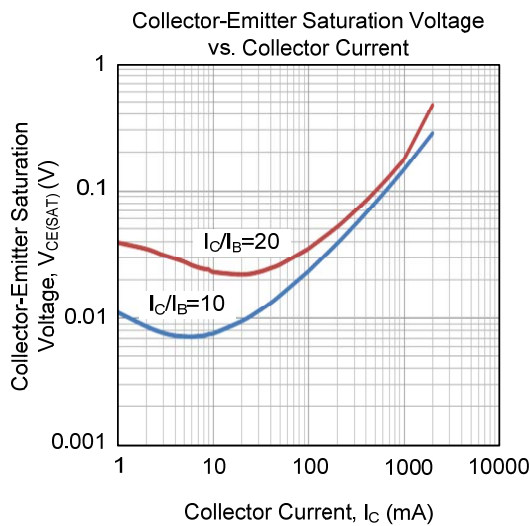
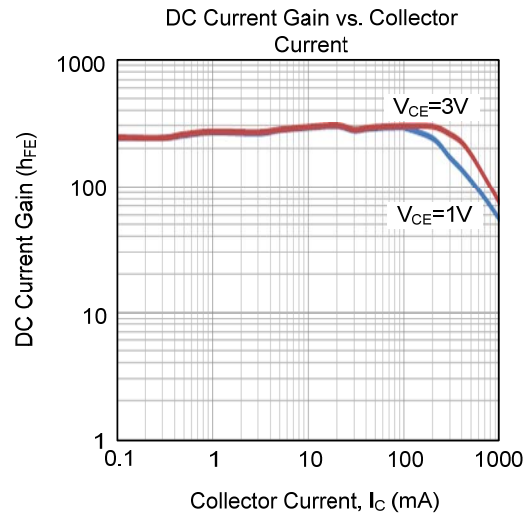
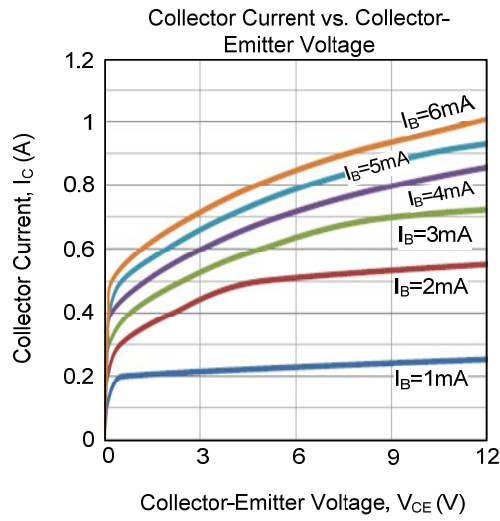
■ ELECTRICAL CHARACTERISTICS (T_A=25°C, unless otherwise specified)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Collector Base Breakdown Voltage	BV _{CBO}	I _C = 50μA	100			V
Collector Emitter Breakdown Voltage	BV _{CEO}	I _C = 1mA	80			V
Emitter Base Breakdown Voltage	BV _{EBO}	I _E =50μA	5			V
Collector Cut-Off Current	I _{CBO}	V _{CB} =80V, I _E =0A			1	μA
Emitter Cut-Off Current	I _{EBO}	V _{EB} =4V, I _C =0A			1	μA
DC Current Transfer Ratio	h _{FE}	V _{CE} =3V, I _C = 0.5A	82		390	
Collector-Emitter Saturation Voltage	V _{CE(SAT)}	I _C =500mA, I _B = 20mA		0.15	0.4	V
Transition Frequency	f _T	V _{CE} =10V, I _E = -50mA, f=100MHZ		100		MHZ
Output Capacitance	C _{OB}	V _{CB} = 10V, I _E = 0A, f=1MHZ		20		pF

■ CLASSIFICATION OF h_{FE}

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

TYPICAL CHARACTERISTICS



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