

# UTC UNISONIC TECHNOLOGIES CO., LTD

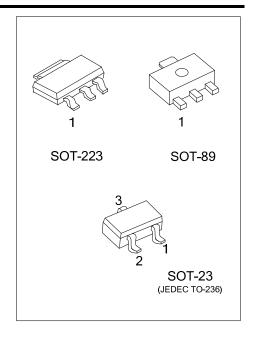
# 2SD1898

### NPN SILICON TRANSISTOR

# **POWER TRANSISTOR**

#### **FEATURES**

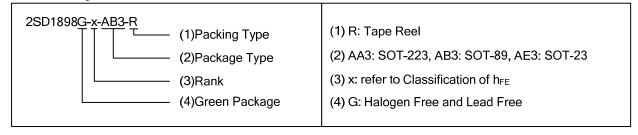
- \*High V<sub>CEO</sub>= 80V
- \*High I<sub>C</sub>= 1A (DC)
- \*Good h<sub>FE</sub> linearity.
- \*Low V<sub>CE(SAT)</sub>
- \*Complements the 2SB1260.



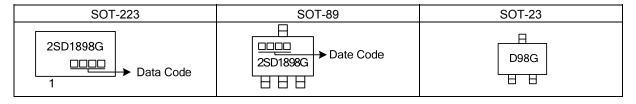
#### ORDERING INFORMATION

Ordering Number	Dookogo	Pin Assignment			Dooking	
Ordering Number	Package	1	2	3	Packing	
2SD1898G-x-AA3-R	SOT-223	В	С	E	Tape Reel	
2SD1898G-x-AB3-R	SOT-89	В	С	E	Tape Reel	
2SD1898G-x-AE3-R	SOT-23	Е	В	С	Tape Reel	

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



#### **MARKING**



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#### ■ ABSOLUTE MAXIMUM RATINGS (T<sub>A</sub>=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 <sub>C</sub>	1	Α
Collector Current(PULSE) (Note 2)		I <sub>CP</sub>	2	Α
Collector Power Dissipation (Note 3)	SOT-223	P <sub>C</sub>	1000	mW
	SOT-89		500	mW
	SOT-23		300	mW
Junction Temperature		$T_J$	150	°C
Storage Temperature		T <sub>STG</sub>	-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,  $P_W = 200$ ms
- 3. When mounted on a 40×40×0.7 mm ceramic board.

## ■ **ELECTRICAL CHARACTERISTICS** (T<sub>A</sub>=25°C, unless otherwise specified)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Collector Base Breakdown Voltage	$BV_CBO$	I <sub>C</sub> = 50μA	100			V
Collector Emitter Breakdown Voltage	BV <sub>CEO</sub> I <sub>C</sub> = 1mA		80			V
Emitter Base Breakdown Voltage	$BV_{EBO}$	I <sub>E</sub> =50μA	5			V
Collector Cut-Off Current	I <sub>CBO</sub>	$V_{CB}$ =80V, $I_E$ =0A			1	μA
Emitter Cut-Off Current	I <sub>EBO</sub>	$V_{EB}$ =4V , $I_{C}$ =0A			1	μA
DC Current Transfer Ratio	$h_{FE}$	V <sub>CE</sub> =3V, I <sub>C</sub> = 0.5A	82		390	
Collector-Emitter Saturation Voltage	$V_{CE(SAT)}$	I <sub>C</sub> =500mA, I <sub>B</sub> = 20mA		0.15	0.4	V
Transition Frequency	$f_{T}$	V <sub>CE</sub> =10V, I <sub>E</sub> = -50mA, f=100MHz		100		MHz
Output Capacitance	$C_OB$	$V_{CB}$ = 10V, $I_E$ = 0A, f=1MHz		20		pF

## CLASSIFICATION OF h<sub>FE</sub>

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

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