



## BFG198

Preliminary

*NPN EPITAXIAL SILICON TRANSISTOR*

### NPN 8GHz WIDEBAND TRANSISTOR

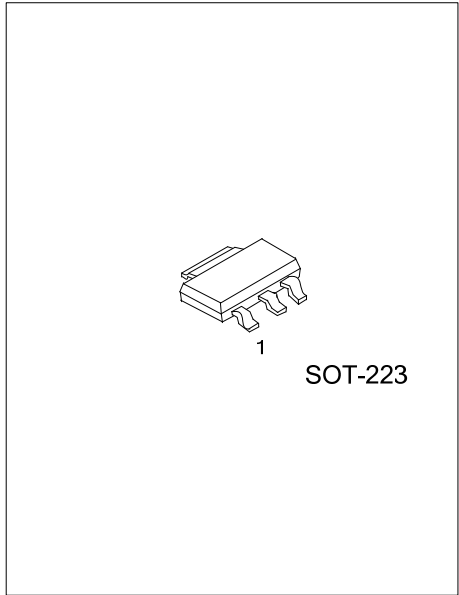
#### DESCRIPTION

UTC **BFG918** is NPN planar epitaxial transistor in a plastic, intended for wideband amplifier applications.

The device features a high gain and excellent output voltage capabilities.

#### FEATURES

- \* High current gain
- \* High current capability



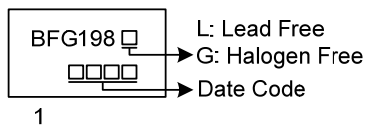
#### ORDERING INFORMATION

Ordering Number		Package	Pin Assignment			Packing
Lead Free	Halogen Free		1	2	3	
BFG198L-AA3-R	BFG198G-AA3-R	SOT-223	B	C	E	Tape Reel

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

<p><b>BFG198G-AA3-R</b></p> <p>(1) Packing Type (2) Package Type (3) Green Package</p>	<p>(1) R: Tape Reel (2) AA3:SOT-223 (3) G: Halogen Free and Lead Free, L: Lead Free</p>
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#### MARKING



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

PARAMETER	SYMBOL	RATINGS	UNIT
Collector-Base Voltage	$BV_{CBO}$	20	V
Collector-Emitter Voltage	$BV_{CEO}$	10	V
Emitter-Base Voltage	$BV_{EBO}$	2.5	V
Collector Current	$I_C$	100	mA
Power Dissipation	$P_D$	1	W
Junction Temperature	$T_J$	+150	$^\circ\text{C}$
Storage Temperature	$T_{STG}$	-65 ~ +150	$^\circ\text{C}$

Note: 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 ( $T_J=25^\circ\text{C}$ , unless otherwise specified)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Collector Cut-Off Current	$I_{CBO}$	$V_{CB}=5\text{V}, I_E=0$			100	nA
Collector-Emitter Cut-Off Current	$I_{CEO}$	$V_{CE}=10\text{V}, I_B=0$			10	$\mu\text{A}$
Emitter-Base Cut-Off Current	$I_{EBO}$	$V_{EB}=2.5\text{V}, I_E=0$			1	$\mu\text{A}$
DC Current Gain	$h_{FE}$	$V_{CE}=5\text{V}, I_C=50\text{mA}$	40			
Collector Capacitance	$C_C$	$I_E=i_e=0, V_{CB}=8\text{V}, f=1\text{MHz}$		1.5		pF
Emitter Capacitance	$C_e$	$I_C=i_c=0, V_{EB}=0.5\text{V}, f=1\text{MHz}$		4		pF
Feedback Capacitance	$C_{re}$	$I_C=0, V_{EB}=8\text{V}, f=1\text{MHz}$		0.8		pF
Transition Frequency	$f_T$	$V_{CE}=8\text{V}, I_C=50\text{mA}, f=1.0\text{GHz}, T_A=25^\circ\text{C}$		8		GHz

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