



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts,Customers Priority,Honest Operation,and Considerate Service",our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832

Email & Skype: info@chipsmall.com Web: www.chipsmall.com

Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China



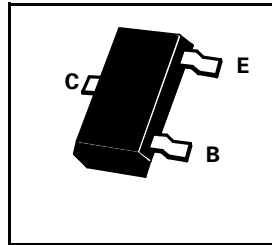
SOT23 NPN SILICON PLANAR VHF/UHF TRANSISTOR

ISSUE 4 – MARCH 2001

BFQ31A

PARTMARKING DETAILS

BFQ31A – S4
BFQ31AR – S5



ABSOLUTE MAXIMUM RATINGS.

PARAMETER	SYMBOL	VALUE	UNIT
Collector-Base Voltage	V_{CBO}	30	V
Collector-Emitter Voltage	V_{CEO}	15	V
Emitter-Base Voltage	V_{EBO}	3	V
Continuous Collector Current	I_C	100	mA
Base Current	I_B	50	mA
Power Dissipation at $T_{amb}=25^{\circ}C$	P_{tot}	330	mW
Operating and Storage Temperature Range	$T_j; T_{stg}$	-55 to +150	$^{\circ}C$

ELECTRICAL CHARACTERISTICS (at $T_{amb} = 25^{\circ}C$).

PARAMETER	SYMBOL	BFQ31A		UNIT	CONDITIONS.
		MIN.	MAX.		
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	30		V	$I_C=1.0\mu A, I_E=0$
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	15		V	$I_C=3mA, I_B=0^*$
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	3		V	$I_E=10\mu A, I_C=0$
Collector Cut-Off Current	I_{CBO}		0.01	μA	$V_{CB}=15V, I_E=0$
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$		0.4	V	$I_C=10mA, I_B=1mA$
Base-Emitter Saturation Voltage	$V_{BE(sat)}$		1.0	V	$I_C=10mA, I_B=1mA$
Static Forward Current Transfer Ratio	h_{FE}	100			$I_C=3mA, V_{CE}=1V$
Transition Frequency	f_T	600		MHz	$I_C=4mA, V_{CE}=10V, f=100MHz$
Output Capacitance	C_{obo}		1.7	pF	$V_{CB}=10V, f=1MHz$
Input Capacitance	C_{ibo}		2.0	pF	$V_{CB}=0.5V, f=1MHz$
Noise Figure	N		6.0	dB	$I_C=1mA, V_{CE}=6V, R_s=400\Omega, f=60MHz$

*Measured under pulsed conditions.
Spice parameter data is available upon request for this device