

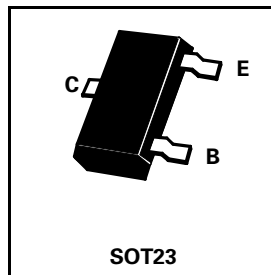
# SOT23 NPN SILICON PLANAR MEDIUM POWER TRANSISTOR

## BCX19

ISSUE 4 – MARCH 2001

PARTMARKING DETAILS – BCX19 - U1  
BCX19R - U4

COMPLEMENTARY TYPES - BCX17



### ABSOLUTE MAXIMUM RATINGS.

PARAMETER	SYMBOL	VALUE	UNIT
Collector-Emitter Voltage	$V_{CES}$	50	V
Collector-Emitter Voltage	$V_{CEO}$	45	V
Emitter-Base Voltage	$V_{EBO}$	5	V
Peak Pulse Current	$I_{CM}$	1000	mA
Continuous Collector Current	$I_C$	500	mA
Base Current	$I_B$	100	mA
Peak Base Current	$I_{BM}$	200	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 $T_{amb} = 25^{\circ}C$ unless otherwise stated).

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	CONDITIONS.
Collector-Base Cut-Off Current	$I_{CBO}$			100 200	nA $\mu A$	$V_{CB}=20V$ $V_{CB}=20V, T_j=150^{\circ}C$
Emitter-Base Cut-Off Current	$I_{EBO}$			10	$\mu A$	$V_{EB}=5V$
Base-Emitter Voltage	$V_{BE}$			1.2	V	$I_C=500mA, V_{CE}=1V^*$
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$			620	mV	$I_C=500mA, I_B=50mA^*$
Static Forward Current Transfer Ratio	$h_{FE}$	100 70 40		600		$I_C=100mA, V_{CE}=1V$ $I_C=300mA, V_{CE}=1V^*$ $I_C=500mA, V_{CE}=1V^*$
Transition Frequency	$f_T$		200		MHz	$I_C=10mA, V_{CE}=5V$ $f=35MHz$
Output Capacitance	$C_{obo}$		5.0		pF	$V_{CB}=10V, f=1MHz$

\*Measured under pulsed conditions.



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