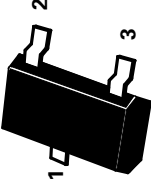


**SOT23 NPN SILICON PLANAR  
MEDIUM POWER TRANSISTOR**

ISSUE 3 -OCTOBER 1995

**BCX41**

PARTMARKING DETAIL - EK



**ABSOLUTE MAXIMUM RATINGS.**

PARAMETER	SYMBOL	VALUE	UNIT
Collector-Emitter Voltage	$V_{CES}$	125	V
Collector-Emitter Voltage	$V_{CEO}$	125	V
Emitter-Base Voltage	$V_{EBO}$	5	V
Peak Pulse Current	$I_{CM}$	1	A
Continuous Collector Current	$I_C$	800	mA
Base Current	$I_B$	100	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	$I_{CES}$			100 10	nA $\mu A$	$V_{CE}=100V$ $V_{CE}=100V, T_{amb}=150^{\circ}C$
Collector Cut-Off Current	$I_{CEX}$			10 75	$\mu A$ $\mu A$	$V_{CE}=100V, V_{BE}=0.2V, T_{amb}=85^{\circ}C$ $V_{CE}=100V, V_{BE}=0.2V,$ $T_{amb}=125^{\circ}C$
Emitter Cut-Off Current	$I_{EBO}$			100	nA	$V_{EB}=4V$
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$			0.9	V	$I_C=300mA, I_B=30mA$ *
Base-Emitter Saturation Voltage	$V_{BE(sat)}$			1.4	V	$I_C=300mA, I_B=30mA$ *
Static Forward Current Transfer Ratio	$h_{FE}$	25 63 40				$I_C=100\mu A, V_{CE}=1V$ $I_C=100mA, V_{CE}=1V$ * $I_C=200mA, V_{CE}=1V$ *
Transition Frequency	$f_T$		100		MHz	$I_C=10mA, V_{CE}=5V$ $f=20MHz$
Output Capacitance	$C_{obo}$		12		pF	$V_{CB}=10V, I_E=0, f=1MHz$

\* Measured under pulsed conditions. Pulse width = 300 $\mu s$ . Duty cycle 2%