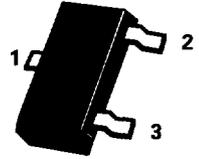


**SOT23 NPN SILICON PLANAR
MEDIUM POWER TRANSISTOR**

BCX41

ISSUE 3 - OCTOBER 1995

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 $T_{amb}=25^\circ\text{C}$	P_{TOT}	330	mW
Operating and Storage Temperature Range	$T_j; T_{stg}$	-55 to +150	$^\circ\text{C}$

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

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

* Measured under pulsed conditions. Pulse width = 300 μs . Duty cycle 2%

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