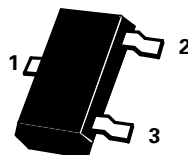


# SOT23 NPN SILICON PLANAR MEDIUM POWER TRANSISTOR

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	$V_{CB} = 10V, I_E = I_C = 0, f = 1MHz$

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



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