SOT23 NPN SILICON PLANAR MEDIUM POWER TRANSISTOR

BCX41

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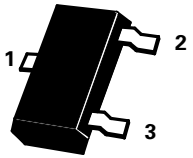
PARTMARKING DETAIL – EK



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°C	P_{TOT}	330	mW
Operating and Storage Temperature Range	T_j:T_{stg}	-55 to +150	°C

ELECTRICAL CHARACTERISTICS (at T_{amb} = 25°C unless otherwise stated).

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	CONDITIONS.
Collector-Base Cut-Off Current	I_{CES}			100 10	nA μA	V_{CE} =100V V_{CE} =100V, T_{amb} =150°C
Collector Cut-Off Current	I_{CEX}			10 75	μA μA	V_{CE} =100V,V_{BE}=0.2V,T_{amb} =85°C V_{CE}=100V,V_{BE}=0.2V, T_{amb}=125°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 =100μA, 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_e=0, f =1MHz

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