

Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from, Europe, America and south Asia, supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts, Customers Priority, Honest Operation, and Considerate Service", our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip, ALPS, ROHM, Xilinx, Pulse, ON, Everlight and Freescale. Main products comprise IC, Modules, Potentiometer, IC Socket, Relay, Connector. Our parts cover such applications as commercial, industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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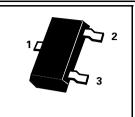


## SOT23 NPN SILICON PLANAR MEDIUM POWER TRANSISTOR

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**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 <sub>CM</sub>	1	Α
Continuous Collector Current	I <sub>C</sub>	800	mA
Base Current	I <sub>B</sub>	100	mA
Power Dissipation at T <sub>amb</sub> =25°C	P <sub>TOT</sub>	330	mW
Operating and Storage Temperature Range	T <sub>j</sub> :T <sub>stg</sub>	-55 to +150	°C

## ELECTRICAL CHARACTERISTICS (at T<sub>amb</sub> = 25°C unless otherwise stated).

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	CONDITIONS.
Collector-Base Cut-Off Current	I <sub>CES</sub>			100 10	nA μA	V <sub>CE</sub> =100V V <sub>CE</sub> =100V, T <sub>amb</sub> =150°C
Collector Cut-Off Current	I <sub>CEX</sub>			10 75	μ <b>Α</b> μ <b>Α</b>	V <sub>CE</sub> =100V,V <sub>BE</sub> =0.2V,T <sub>amb</sub> =85°C V <sub>CE</sub> =100V,V <sub>BE</sub> =0.2V, T <sub>amb</sub> =125°C
Emitter Cut-Off Current	I <sub>EBO</sub>			100	nA	V <sub>EB</sub> =4V
Collector-Emitter Saturation Voltage	V <sub>CE(sat)</sub>			0.9	V	$I_C$ =300mA, $I_B$ =30mA *
Base-Emitter Saturation Voltage	V <sub>BE(sat)</sub>			1.4	V	I <sub>C</sub> =300mA, I <sub>B</sub> =30mA *
Static Forward Current Transfer Ratio	h <sub>FE</sub>	25 63 40				$ \begin{array}{l} I_{C} = 100 \mu A, \ V_{CE} = 1 V \\ I_{C} = 100 mA, \ V_{CE} = 1 V \ * \\ I_{C} = 200 mA, \ V_{CE} = 1 V \ * \end{array} $
Transition Frequency	f <sub>T</sub>		100		MHz	$I_C = 10$ mA, $V_{CE} = 5V$ f = 20MHz
Output Capacitance	C <sub>obo</sub>		12		pF	$V_{CB} = 10V$ , $I_E = I_e = 0$ , $f = 1MHz$

<sup>\*</sup> Measured under pulsed conditions. Pulse width = 300µs. Duty cycle 2%