THE DATASHEET OF

BCX20

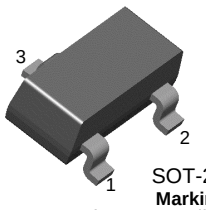
FAIRCHILD SEMICONDUCTOR®

January 2005

BCX20

NPN Epitaxial Silicon Transistor

Switching and Amplifier Applications



SOT-23
Marking: U2

1. Base 2. Emitter 3. Collector

Absolute Maximum Ratings T_a = 25°C unless otherwise noted

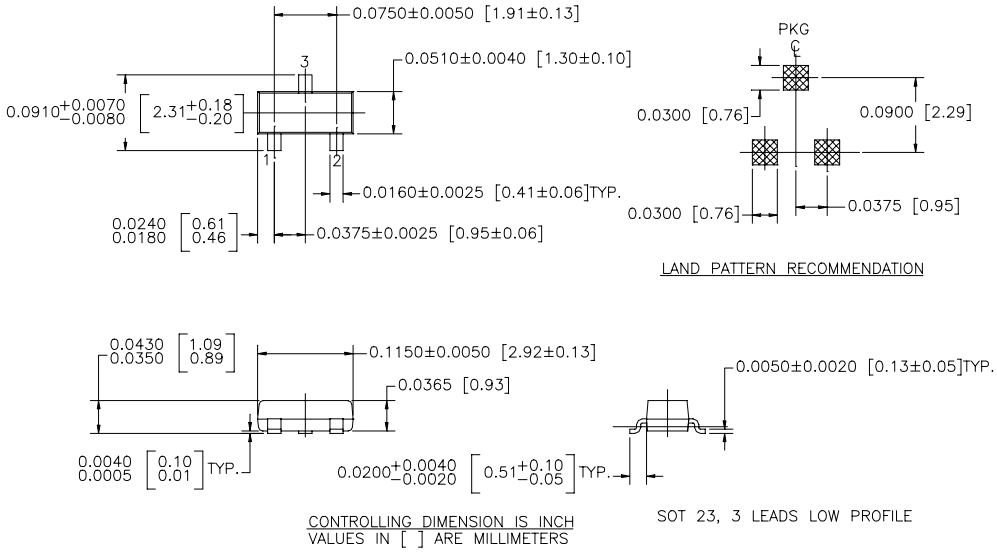
Symbol	Parameter	Value	Units
V_{CES}	Collector-Emitter Voltage	30	V
V_{CEO}	Collector-Emitter Voltage	25	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current (DC)	800	A
P_C	Collector Dissipation	310	W
T_J	Junction Temperature	150	°C
T_{STG}	Storage Temperature	-65 ~ 150	°C

Electrical Characteristics T_C = 25°C unless otherwise noted

Symbol	Parameter	Conditions	Min.	Max	Units
BV_{CEO}	Collector-Emitter Breakdown Voltage	I_C = 10mA, I_B = 0	25		V
BV_{CES}	Collector-Emitter Breakdown Voltage	I_C = 100μA, V_{BE} = 0	30		V
BV_{EBO}	Emitter-Base Breakdown Voltage	I_E = 10μA, I_C = 0	5		V
I_{CBO}	Collector Cut-off Current	V_{CE} = 20V, V_{BE} = 0		100	nA
I_{EBO}	Emitter-Base Cut-off Current	V_{BE} =5V, I_C = 0		10	nA
h_{FE1} h_{FE2} h_{FE3}	DC Current Gain	V_{CE} = 1V, I_C = 100mA V_{CE} = 1V, I_C = 300mA V_{CE} = 1V, I_C = 500mA	100 70 40	600	
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	I_C = 500mA, I_B = 50mA		0.62	V
$V_{BE(on)}$	Base-Emitter Saturation Voltage	V_{CE} = 1A, I_B = 500mA		1.2	V

Mechanical Dimensions

SOT-23



NOTE : UNLESS OTHERWISE SPECIFIED

1. STANDARD LEAD FINISH 150 MICROINCHES / 3.81 MICROMETERS MINIMUM TIN / LEAD (SOLDER) ON ALLOY 42
2. REFERENCE JEDEC REGISTRATION TO−236, VARIATION AB, ISSUE G, DATED JUL 1993

Dimensions in Millimeters

TRADEMARKS

The following are registered and unregistered trademarks Fairchild Semiconductor owns or is authorized to use and is not intended to be an exhaustive list of all such trademarks.

ACEx™	FAST®	IntelliMAX™	POP™	SPM™
ActiveArray™	FASTr™	ISOPLANAR™	Power247™	Stealth™
Bottomless™	FPS™	LittleFET™	PowerEdge™	SuperFET™
CoolFET™	FRFET™	MICROCOUPLER™	PowerSaver™	SuperSOT™-3
CROSSVOLT™	GlobalOptoisolator™	MicroFET™	PowerTrench®	SuperSOT™-6
DOME™	GTO™	MicroPak™	QFET®	SuperSOT™-8
EcoSPARK™	HiSeC™	MICROWIRE™	QS™	SyncFET™
E^2CMOS™	I^2C™	MSX™	QT Optoelectronics™	TinyLogic®
EnSigna™	*i-Lo*™	MSXPro™	Quiet Series™	TINYOPTO™
FACT™	ImpliedDisconnect™	OCX™	RapidConfigure™	TruTranslation™
FACT Quiet Series™		OCXPro™	RapidConnect™	UHC™
Across the board. Around the world.™		OPTOLOGIC®	µSerDes™	UltraFET®
The Power Franchise®		OPTOPLANAR™	SILENT SWITCHER®	UniFET™
Programmable Active Droop™		PACMAN™	SMART START™	VCX™

PRODUCT STATUS DEFINITIONS

Definition of Terms

Datasheet Identification	Product Status	Definition
Advance Information	Formative or In Design	This datasheet contains the design specifications for product development. Specifications may change in any manner without notice.
Preliminary	First Production	This datasheet contains preliminary data, and supplementary data will be published at a later date. Fairchild Semiconductor reserves the right to make changes at any time without notice in order to improve design.
No Identification Needed	Full Production	This datasheet contains final specifications. Fairchild Semiconductor reserves the right to make changes at any time without notice in order to improve design.
Obsolete	Not In Production	This datasheet contains specifications on a product that has been discontinued by Fairchild semiconductor. The datasheet is printed for reference information only.

Looking for pricing, stock, or lifecycle information?

Click below to explore more details on WIN SOURCE:

- View BCX20 on WIN SOURCE
- Fairchild/ON Semiconductor Information

Optimize Your Supply Chain with WIN SOURCE Solutions

- Global Sourcing Solution
- Obsolete Management
- Cost Control Management
- Shortage Management
- Alternative Solution
- Excess Inventory Management