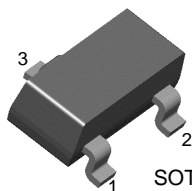


BCX20

NPN Epitaxial Silicon Transistor

Switching and Amplifier Applications



SOT-23
Marking: U2
1. Base 2. Emitter 3. Collector

Absolute Maximum Ratings $T_a = 25^\circ\text{C}$ unless otherwise noted

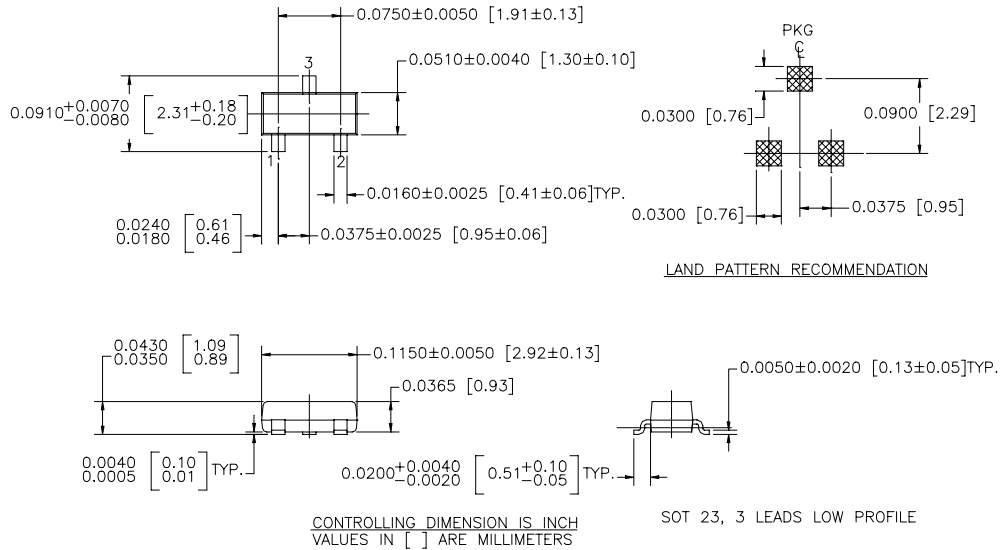
Symbol	Parameter	Value	Units
V_{CES}	Collector-Emitter Voltage	30	V
V_{CEO}	Collector-Emitter Voltage	25	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current (DC)	800	A
P_C	Collector Dissipation	310	W
T_J	Junction Temperature	150	$^\circ\text{C}$
T_{STG}	Storage Temperature	-65 ~ 150	$^\circ\text{C}$

Electrical Characteristics $T_C = 25^\circ\text{C}$ unless otherwise noted

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

Mechanical Dimensions

SOT-23



- NOTE : UNLESS OTHERWISE SPECIFIED
- STANDARD LEAD FINISH 150 MICROINCHES / 3.81 MICROMETERS
MINIMUM TIN / LEAD (SOLDER) ON ALLOY 42
 - REFERENCE JEDEC REGISTRATION TO-236, VARIATION AB, ISSUE G, DATED JUL 1993

Dimensions in Millimeters

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CoolFET™	FRFET™	MICROCOUPLER™	PowerSaver™	SuperSOT™-3
CROSSVOLT™	GlobalOptoisolator™	MicroFET™	PowerTrench®	SuperSOT™-6
DOMET™	GTO™	MicroPak™	QFET®	SuperSOT™-8
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E ² CMOS™	ꝑC™	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™

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