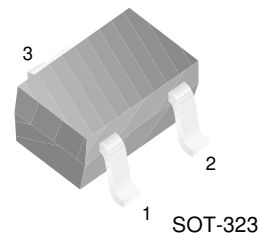


FJX3012R

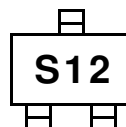
Switching Application (Bias Resistor Built In)

- Switching circuit, Inverter, Interface circuit, Driver Circuit
- Built in bias Resistor ($R=47K\Omega$)
- Complement to FJX4012R

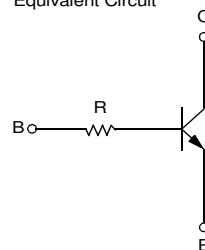


1. Base 2. Emitter 3. Collector

Marking



Equivalent Circuit



NPN Epitaxial Silicon Transistor

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

Symbol	Parameter	Value	Units
V_{CBO}	Collector-Base Voltage	40	V
V_{CEO}	Collector-Emitter Voltage	40	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current	100	mA
P_C	Collector Power Dissipation	200	mW
T_J	Junction Temperature	150	$^\circ\text{C}$
T_{STG}	Storage Temperature	-55 ~ 150	$^\circ\text{C}$

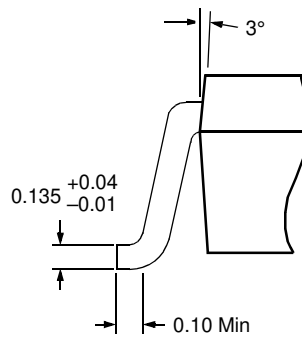
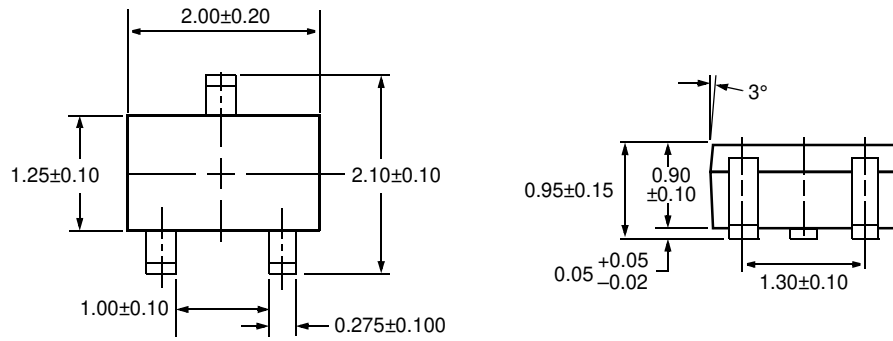
Electrical Characteristics $T_a=25^\circ\text{C}$ unless otherwise noted

Symbol	Parameter	Test Condition	Min.	Typ.	Max.	Units
BV_{CBO}	Collector-Base Breakdown Voltage	$I_C=100\mu\text{A}$, $I_E=0$	40			V
BV_{CEO}	Collector-Emitter Breakdown Voltage	$I_E=1\text{mA}$, $I_B=0$	40			V
I_{CBO}	Collector Cut-off Current	$V_{CB}=30\text{V}$, $I_E=0$			0.1	μA
h_{FE}	DC Current Gain	$V_{CE}=5\text{V}$, $I_C=1\text{mA}$	100		600	
$V_{CE}(\text{sat})$	Collector-Emitter Saturation Voltage	$I_C=10\text{mA}$, $I_B=1\text{mA}$			0.3	V
C_{ob}	Output Capacitance	$V_{CB}=10\text{V}$, $I_E=0$ $f=1\text{MHz}$		3.7		pF
f_T	Current Gain Bandwidth Product	$V_{CE}=10\text{V}$, $I_C=5\text{mA}$		250		MHz
R	Input Resistor		32	47	62	$K\Omega$

Package Dimensions

FJX3012R

SOT-323



Dimensions in Millimeters

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CoolFET TM	FAST ^r TM	MicroFET TM	PowerTrench [®]	SuperSOT TM -6
CROSSVOL TM	FRFET TM	MicroPak TM	QFET TM	SuperSOT TM -8
DOME TM	GlobalOptoisolator TM	MICROWIRE TM	QS TM	SyncFET TM
EcoSPARK TM	GTO TM	MSX TM	QT Optoelectronics TM	TinyLogic TM
E ² CMOS TM	HiSeC TM	MSXPro TM	Quiet Series TM	TruTranslation TM
EnSigna TM	I ² C TM	OCX TM	RapidConfigure TM	UHC TM
Across the board. Around the world. TM		OCXPro TM	RapidConnect TM	UltraFET [®]
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Programmable Active Droop TM		OPTOPLANAR TM	SMART START TM	

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PRODUCT STATUS DEFINITIONS

Definition of Terms

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