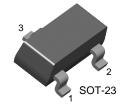


### KST2484

### **Low Noise Transistor**



1. Base 2. Emitter 3. Collector

## **NPN Epitaxial Silicon Transistor**

### **Absolute Maximum Ratings** $T_a$ =25°C unless otherwise noted

Symbol	Parameter	Value	Units
V <sub>CBO</sub>	Collector Base Voltage	60	V
V <sub>CEO</sub>	Collector-Emitter Voltage	60	V
V <sub>EBO</sub>	Emitter-Base Voltage	6	V
I <sub>C</sub>	Collector Current	50	mA
P <sub>C</sub>	Collector Power Dissipation	350	mW
T <sub>STG</sub>	Storage Temperature	150	°C

Refer to KSP5088 for graphs

## $\textbf{Electrical Characteristics} \ \, \textbf{T}_{a} \!\!=\!\! 25^{\circ} \textbf{C} \ \, \text{unless otherwise noted}$

Symbol	Parameter	Test Condition	Min.	Max.	Units
BV <sub>CBO</sub>	Collector-Base Breakdown Voltage	$I_{C}=10\mu A, I_{E}=0$	60		V
BV <sub>CEO</sub>	Collector-Emitter Breakdown Voltage	I <sub>C</sub> =10mA, I <sub>B</sub> =0	60		V
BV <sub>EBO</sub>	Emitter-Base Breakdown Voltage	I <sub>E</sub> =10μA, I <sub>C</sub> =0	5		V
I <sub>CBO</sub>	Collector Cut-off Current	V <sub>CB</sub> =45V, I <sub>E</sub> =0		10	nA
I <sub>EBO</sub>	Emitter Cut-off Current	$V_{EB}=5V$ , $I_{C}=0$		10	nA
h <sub>FE</sub>	DC Current Gain	$V_{CE}$ =5V, $I_{C}$ =1mA $V_{CE}$ =5V, $I_{C}$ =10mA	250	800	
V <sub>CE</sub> (sat)	Collector-Emitter Saturation Voltage	I <sub>C</sub> =1mA, I <sub>B</sub> =0.1mA		0.35	V
V <sub>BE</sub> (on)	Base-Emitter On Voltage	I <sub>C</sub> =1mA, V <sub>CE</sub> =5V		0.95	V
C <sub>ob</sub>	Output Capacitance	$V_{CB}$ =5.0V, $I_{E}$ =0, f=1MHz,		6	pF
NF	Noise Figure	$I_C$ =10μA, $V_{CE}$ =5V $R_S$ =10KΩ, f=1KHz		3	dB

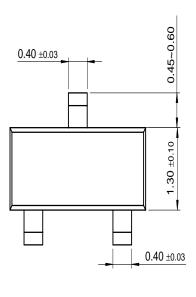


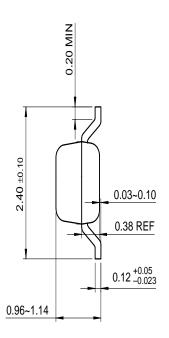


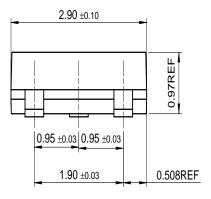
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# **Package Dimensions**

## **SOT-23**







Dimensions in Millimeters

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EcoSPARK™	GTO™	MSX™	QT Optoelectronics™	TinyLogic™
E <sup>2</sup> CMOS™	HiSeC™	MSXPro™	Quiet Series™	TruTranslation™
EnSigna™	$I^2C^{TM}$	$OCX^{TM}$	RapidConfigure™	UHC™
Across the board.	. Around the world.™	OCXPro™	RapidConnect™	UltraFET <sup>®</sup>
The Power Franchise™		OPTOLOGIC <sup>®</sup>	SILENT SWITCHER®	VCX™
Programmable Active Droop™		OPTOPLANAR™	SMART START™	

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