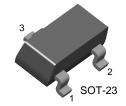


## **KST4126**

## **General Purpose Transistor**



1. Base 2. Emitter 3. Collector

# **PNP Epitaxial Silicon Transistor**

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

Symbol	Parameter	Value	Units
$V_{CBO}$	Collector-Base Voltage	-25	V
$V_{CEO}$	Collector-Emitter Voltage	-25	V
V <sub>EBO</sub>	Emitter-Base Voltage	-4	V
I <sub>C</sub>	Collector Current	-200	mA
P <sub>C</sub>	Collector Power Dissipation	350	mW
T <sub>STG</sub>	Storage Temperature	150	°C
R <sub>TH</sub> (j-a)	Thermal Resistance junction to Ambient	357	°C/W

### **Electrical Characteristics** $T_a$ =25°C unless otherwise noted

Symbol	Parameter	Test Condition	Min.	Max.	Units
BV <sub>CBO</sub>	Collector-Base Breakdown Voltage	I <sub>C</sub> = -10μA, I <sub>E</sub> =0	-25		V
BV <sub>CEO</sub>	* Collector-Emitter Breakdown Voltage	$I_C = -1 \text{mA}, I_E = 0$	-25		V
BV <sub>EBO</sub>	Emitter-Base Breakdown Voltage	I <sub>E</sub> = -10μA, I <sub>C</sub> =0	-4		
I <sub>CBO</sub>	Collector Cut-off Current	V <sub>CB</sub> = -20V, I <sub>E</sub> =0		-50	nA
I <sub>EBO</sub>	Emitter Cut-off Current	$V_{BE}$ = -3V, $I_{C}$ =0		-50	nA
h <sub>FE</sub>	* DC Current Gain	V <sub>CE</sub> = -1V, I <sub>C</sub> = -2mA	120	360	
		$V_{CE}$ = -1V, $I_{C}$ = -50mA	60		
V <sub>CE</sub> (sat)	* Collector-Emitter Saturation Voltage	$I_C$ = -50mA, $I_B$ = -5mA		-0.4	V
V <sub>BE</sub> (sat)	* Base-Emitter Saturation Voltage	$I_C$ = -50mA, $I_B$ = -5mA		-0.95	V
f <sub>T</sub>	Current Gain Bandwidth Product	V <sub>CE</sub> = -20V, I <sub>C</sub> = -10mA, f=100MHz	250		MHz
C <sub>ib</sub>	Input Capacitance	V <sub>BE</sub> = -0.5V, I <sub>C</sub> =0, f=1MHz		10	pF
C <sub>ob</sub>	Output Capacitance	V <sub>CB</sub> = -5V, I <sub>E</sub> =0, f=1MHz		4.5	pF
NF	Noise Figure	$V_{CE}$ = -5V, $I_{C}$ = -100μA, $R_{S}$ =1K $\Omega$		4	dB
		Noise Bandwidth=10Hz to 15.7KHz			

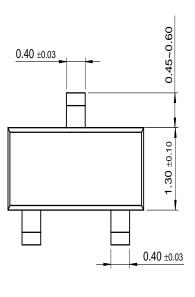
<sup>\*</sup> Pulse Test: PW≤300μs, Duty Cycle≤2%

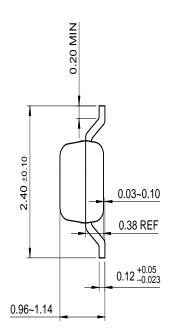


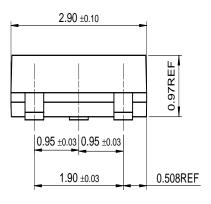
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# **Package Dimensions**

## **SOT-23**







Dimensions in Millimeters

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CoolFET™	FASTr™	MicroFET™	PowerTrench <sup>®</sup>	SuperSOT™-6
$CROSSVOLT^{TM}$	FRFET™	MicroPak™	QFET™	SuperSOT™-8
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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®	$VCX^{TM}$
Programmable Active Droop™		OPTOPLANAR™	SMART START™	

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