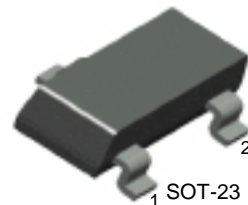


KST05/06

KST05/06

Driver Transistor

- Collector-Emitter Voltage: V_{CEO} = KST05: 60V
KST06: 80V
- Collector Dissipation: P_C (max) = 350mW
- Complement to KST55/56



1. Base 2. Emitter 3. Collector

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		
	: KST05	60	V
	: KST06	80	V
V_{CEO}	Collector-Emitter Voltage		
	: KST05	60	V
	: KST06	80	V
V_{EBO}	Emitter-Base Voltage	4	V
I_C	Collector Current	500	mA
P_C	Collector Dissipation	350	mW
T_{STG}	Storage Temperature	150	$^\circ\text{C}$
$R_{TH(j-a)}$	Thermal Resistance junction to Ambient	357	$^\circ\text{C/W}$

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

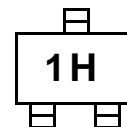
Symbol	Parameter	Test Condition	Min.	Max.	Units
BV_{CEO}	* Collector-Emitter Breakdown Voltage				
	: KST05	$I_C=1\text{mA}, I_B=0$	60		V
	: KST06		80		V
BV_{EBO}	Emitter-Base Breakdown Voltage	$I_E=100\mu\text{A}, I_C=0$	4		V
I_{CBO}	Collector Cut-off Current	$V_{CB}=60\text{V}, I_E=0$		0.1	μA
	: KST05	$V_{CB}=80\text{V}, I_E=0$		0.1	μA
	: KST06			0.1	μA
I_{CEO}	Collector Cut-off Current	$V_{CE}=60\text{V}, I_B=0$		0.1	μA
h_{FE}	DC Current Gain	$V_{CE}=1\text{V}, I_C=10\text{mA}$	50		
		$V_{CE}=1\text{V}, I_C=100\text{mA}$	50		
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C=100\text{mA}, I_B=10\text{mA}$		0.25	V
$V_{BE(on)}$	Base-Emitter On Voltage	$V_{CE}=1\text{V}, I_C=100\text{mA}$		1.2	V
f_T	Current Gain Bandwidth Product	$V_{CE}=2\text{V}, I_C=100\text{mA}, f=100\text{MHz}$	100		MHz

* Pulse Test: $PW \leq 300\mu\text{s}$, Duty Cycles $\leq 2\%$

Marking Code

Type	KST05	KST06
Mark	1H	1G

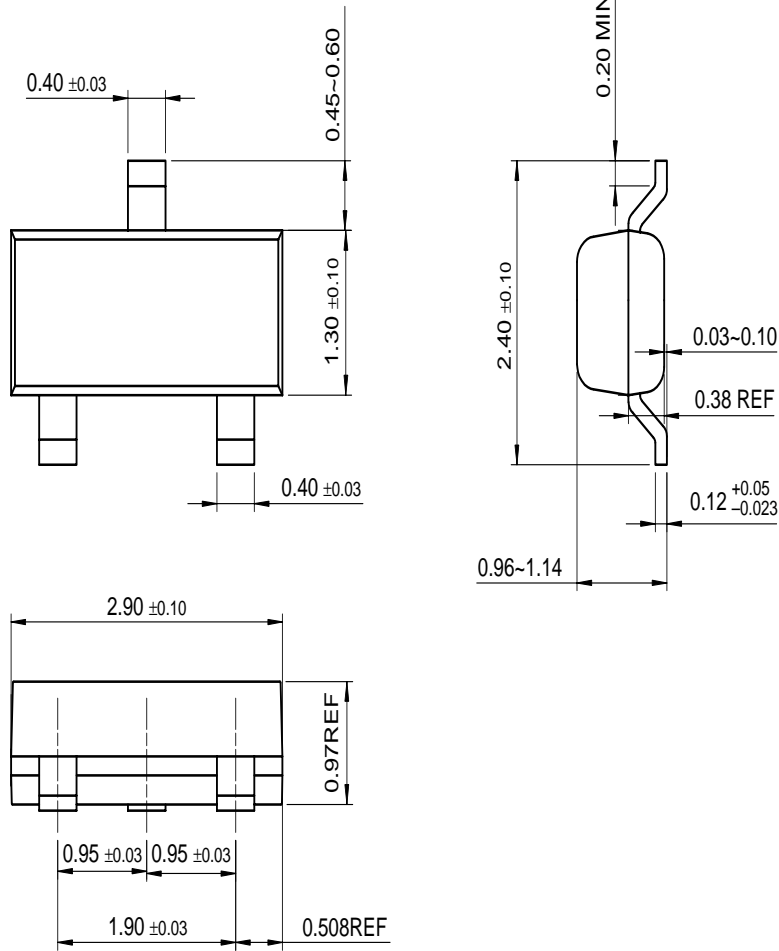
Marking



Package Dimensions

KST05/06

SOT-23



Dimensions in Millimeters

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E ² CMOS™	PowerTrench®	VCX™
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FACT Quiet Series™	QS™	
FAST®	Quiet Series™	
FASTr™	SuperSOT™-3	
GTO™	SuperSOT™-6	

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2. A critical component is any component of a life support device or system whose failure to perform can be reasonably expected to cause the failure of the life support device or system, or to affect its safety or effectiveness.

PRODUCT STATUS DEFINITIONS

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