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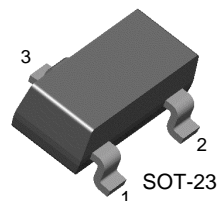
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# KST05/06

KST05/06

## Driver Transistor

- Collector-Emitter Voltage:  $V_{CEO}$  = KST05: 60V  
KST06: 80V
- Collector Power 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 : KST06	60 80	V V
$V_{CEO}$	Collector-Emitter Voltage : KST05 : KST06	60 80	V V
$V_{EBO}$	Emitter-Base Voltage	4	V
$I_C$	Collector Current	500	mA
$P_C$	Collector Power 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

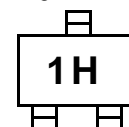
Symbol	Parameter	Test Condition	Min.	Max.	Units
$BV_{CEO}$	* Collector-Emitter Breakdown Voltage : KST05 : KST06	$I_C=1\text{mA}$ , $I_B=0$	60 80		V V
$BV_{EBO}$	Emitter-Base Breakdown Voltage	$I_E=100\mu\text{A}$ , $I_C=0$	4		V
$I_{CBO}$	Collector Cut-off Current : KST05 : KST06	$V_{CB}=60\text{V}$ , $I_E=0$ $V_{CB}=80\text{V}$ , $I_E=0$		0.1 0.1	$\mu\text{A}$ $\mu\text{A}$
$I_{CEO}$	Collector Cut-off Current	$V_{CE}=60\text{V}$ , $I_B=0$		0.1	$\mu\text{A}$
$h_{FE}$	DC Current Gain	$V_{CE}=1\text{V}$ , $I_C=10\text{mA}$ $V_{CE}=1\text{V}$ , $I_C=100\text{mA}$	50 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 Cycle  $\leq 2\%$

## Marking Code

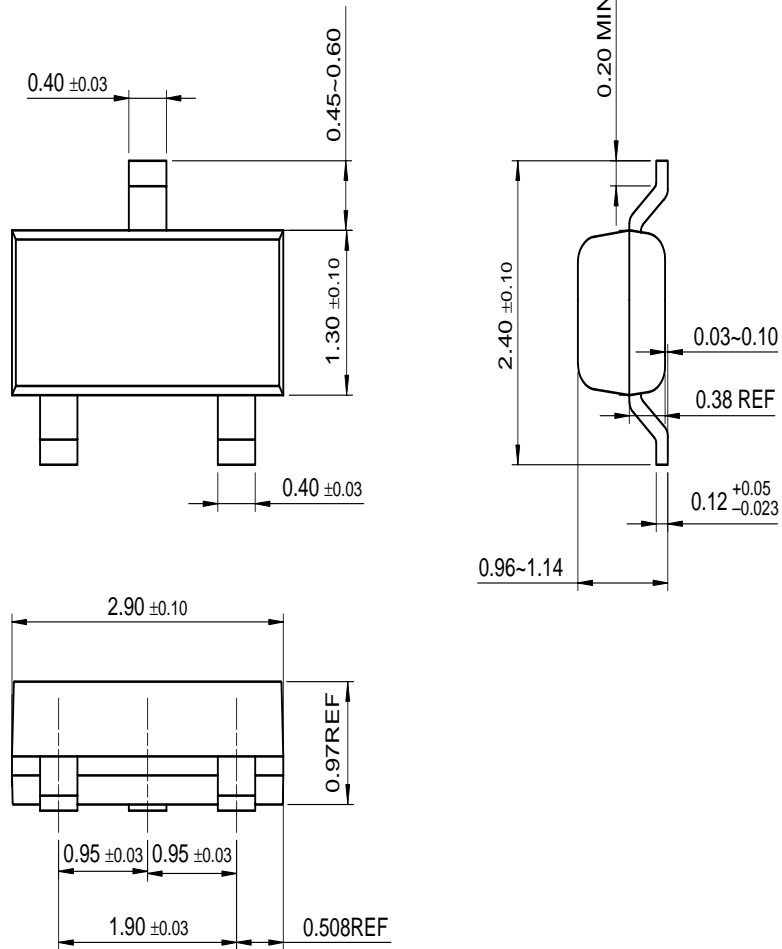
Type	KST05	KST06
Mark	1H	1G

Marking



# Package Dimensions

## SOT-23



Dimensions in Millimeters

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