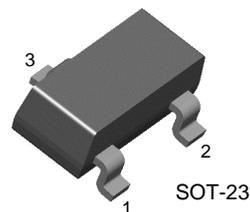


## KST05/06

### Driver Transistor

- Collector-Emitter Voltage:  $V_{CE0}$  = 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	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 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

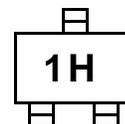
Symbol	Parameter	Test Condition	Min.	Max.	Units
$BV_{CEO}$	* Collector-Emitter Breakdown Voltage				
	: KST05	$I_C=1\text{mA}, I_B=0$	60		V
	: KST06		80		V
$BV_{EBO}$	Emitter-Base Breakdown Voltage	$I_E=100\mu\text{A}, I_C=0$	4		V
$I_{CBO}$	Collector Cut-off Current	$V_{CB}=60\text{V}, I_E=0$		0.1	$\mu\text{A}$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

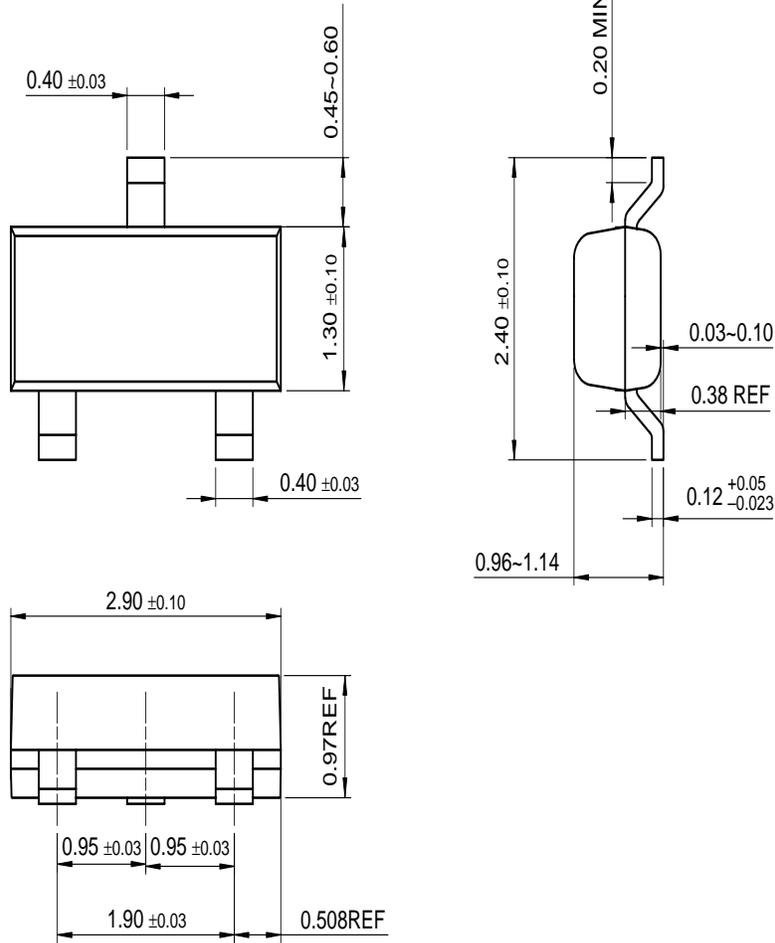
Type	KST05	KST06
Mark	1H	1G

Marking



# Package Dimensions

## SOT-23



Dimensions in Millimeters

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No Identification Needed	Full Production	This datasheet contains final specifications. Fairchild Semiconductor reserves the right to make changes at any time without notice in order to improve design.
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KST05  
NPN Epitaxial Silicon Transistor

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

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Applications

**Driver Transistor**

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Product status/pricing/packageing

Product	Product status	Pricing*	Package type	Leads	Packing method
KST05MTF	Full Production	\$0.058	<a href="#">SOT-23</a>	3	TAPE REEL

\* 1,000 piece Budgetary Pricing

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KST06  
NPN Epitaxial Silicon Transistor

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Features

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- Collector-Emitter Voltage :  $V_{CEO}$ =KST06: 80V
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Product status/pricing/packageing

Product	Product status	Pricing*	Package type	Leads	Packing method
KST06MTF	Full Production	\$0.058	<a href="#">SOT-23</a>	3	TAPE REEL

\* 1,000 piece Budgetary Pricing

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