

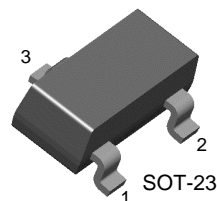


**THE DATASHEET OF
KST93MTF**



KST92/93

High Voltage Transistor



1. Base 2. Emitter 3. Collector

PNP Epitaxial Silicon Transistor

Absolute Maximum Ratings $T_a=25^\circ\text{C}$ unless otherwise noted

Symbol	Parameter	Value	Units
V_{CBO}	Collector Base Voltage		
	: KST92	-300	V
	: KST93	-200	V
V_{CEO}	Collector-Emitter Voltage		
	: KST92	-300	V
	: KST93	-200	V
V_{EBO}	Emitter-Base Voltage	-5	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	$^\circ\text{C/W}$

• Refer to KSP92/93 for graphs

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

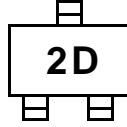
Symbol	Parameter	Test Condition	Min.	Max.	Units
BV_{CBO}	Collector-Base Breakdown Voltage	$I_C = -100\mu\text{A}, I_E = 0$			
	: KST92		-300		V
	: KST93		-200		V
BV_{CEO}	* Collector-Emitter Breakdown Voltage	$I_C = -1\text{mA}, I_B = 0$			
	: KST92		-300		V
	: KST93		-200		V
BV_{EBO}	Emitter-Base Breakdown Voltage	$I_E = -100\mu\text{A}, I_C = 0$	-5		V
I_{CBO}	Collector Cut-off Current				
	: KST92	$V_{CB} = -200\text{V}, I_E = 0$		-0.25	μA
	: KST93	$V_{CB} = -160\text{V}, I_E = 0$		-0.25	μA
I_{EBO}	Emitter Cut-off Current	$V_{EB} = -5\text{V}, I_C = 0$		-0.1	μA
h_{FE}	* DC Current Gain	$V_{CE} = -10\text{V}, I_C = -1\text{mA}$	25		
		$V_{CE} = -10\text{V}, I_C = -10\text{mA}$	40		
		$V_{CE} = -10\text{V}, I_C = -30\text{mA}$	25		
$V_{CE(sat)}$	* Collector-Emitter Saturation Voltage	$I_C = -20\text{mA}, I_B = -2\text{mA}$		-0.5	V
$V_{BE(sat)}$	* Base-Emitter Saturation Voltage	$I_C = -20\text{mA}, I_B = -2\text{mA}$		-0.9	V
C_{ob}	Output Capacitance				
	: KST92	$V_{CB} = -20\text{V}, I_E = 0$		6	pF
	: KST93	$f = 1\text{MHz}$		8	pF
f_T	Current Gain Bandwidth Product	$V_{CE} = -20\text{V}, I_C = -10\text{mA}$ $f = 100\text{MHz}$	50		MHz

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

Marking Code

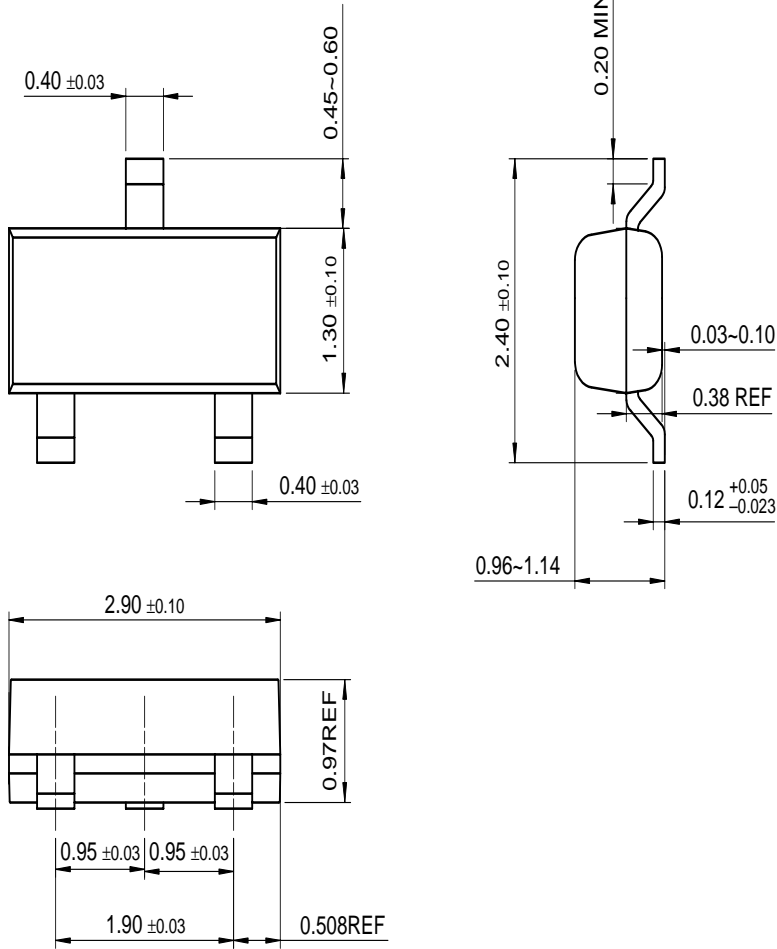
Type	KST92	KST93
Mark	2D	2E

Marking



Package Dimensions

SOT-23



Dimensions in Millimeters

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