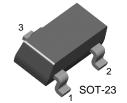


SEMICONDUCTOR®

# KST55/56

### **Driver Transistor**

- Collector-Emitter Voltage: V<sub>CEO</sub> = KST55: 60V
- KST56: 80V
- Collector Power Dissipation:  $P_C$  (max) = 350mW
- Complement to KST05/06



1. Base 2. Emitter 3. Collector

# **PNP Epitaxial Silicon Transistor**

## Absolute Maximum Ratings Ta=25°C unless otherwise noted

Symbol	Parameter	Value	Units
V <sub>CBO</sub>	Collector Base Voltage		
	: KST55	-60	V
	: KST56	-80	V
V <sub>CEO</sub>	Collector-Emitter Voltage		
	: KST55	-60	V
	: KST56	-80	V
V <sub>EBO</sub>	Emitter-Base Voltage	-4	V
I <sub>C</sub>	Collector Current	-500	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 Ta=25°C unless otherwise noted

Symbol	Parameter	Test Condition	Min.	Max.	Units
BV <sub>CEO</sub>	* Collector-Emitter Breakdown Voltage : KST55 : KST56	I <sub>C</sub> = -1mA, I <sub>B</sub> =0	-60 -80		V V
BV <sub>EBO</sub>	* Emitter-Base Breakdown Voltage	I <sub>E</sub> = -100μA, I <sub>C</sub> =0	-30		V
I <sub>CBO</sub>	Collector Cut-off Current	V <sub>CB</sub> = -60V, I <sub>E</sub> =0		-0.1	μA
I <sub>CEO</sub>	Collector Cut-off Current : KST55 : KST56	V <sub>CE</sub> = -60V, I <sub>B</sub> =0 V <sub>CE</sub> = -80V, I <sub>B</sub> =0		-0.1 -0.1	μΑ μΑ
h <sub>FE</sub>	DC Current Gain	V <sub>CE</sub> = -1V, I <sub>C</sub> = -10mA V <sub>CE</sub> = -1V, I <sub>C</sub> = -100mA	50 50		
V <sub>CE</sub> (sat)	Collector-Emitter Saturation Voltage	I <sub>C</sub> = -100mA, I <sub>B</sub> = -10mA		-0.25	V
V <sub>BE</sub> (on)	Base-Emitter On Voltage	V <sub>CE</sub> = -1V, I <sub>C</sub> = -100mA		-1.2	V
f <sub>T</sub>	Current Gain Bandwidth Product	V <sub>CE</sub> = -1V, I <sub>C</sub> = -100mA f=100MHz	50		MHz

\* Pulse Test: PW $\leq$ 300 $\mu$ s, Duty Cycle $\leq$ 2%

## Marking Code

Туре	KST55	KST56
Mark	2H	2G

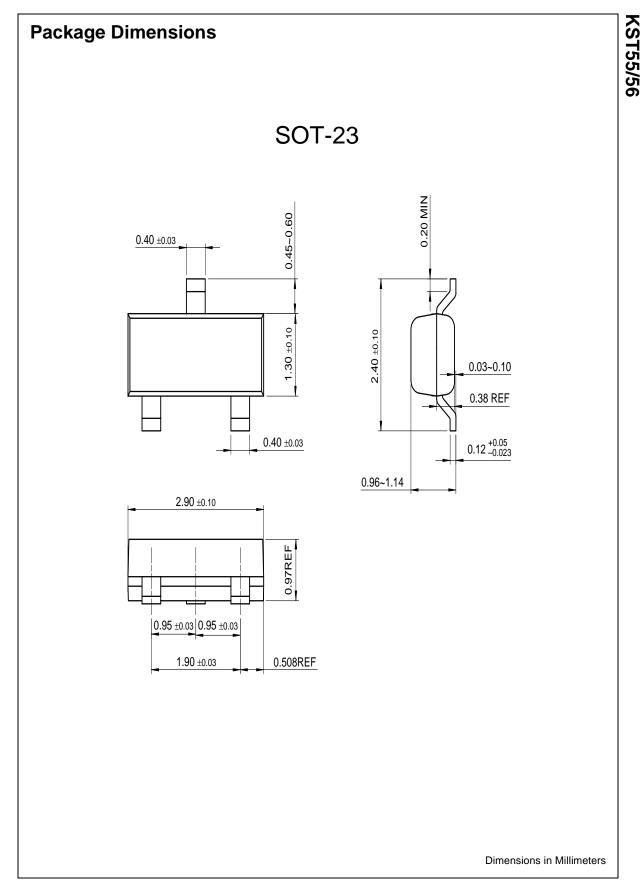
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日 2H

Marking

KST55/56



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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.

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#### **Definition of Terms**

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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.
Obsolete	Not In Production	This datasheet contains specifications on a product that has been discontinued by Fairchild semiconductor. The datasheet is printed for reference information only.

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