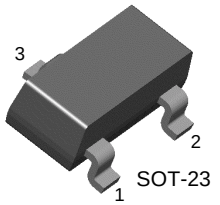
FAIRCHILD
SEMICONDUCTOR®

KST55/56

Driver Transistor

- Collector-Emitter Voltage: V_{CEO} = KST55: - 60V
  KST56: - 80V
- Collector Power Dissipation: P_C (max) = 350mW
- Complement to KST05/06



SOT-23

1. Base 2. Emitter 3. Collector

PNP Epitaxial Silicon Transistor

Absolute Maximum Ratings T_a=25°C unless otherwise noted

Symbol	Parameter	Value	Units
V_{CBO}	Collector Base Voltage		
	: KST55	-60	V
	: KST56	-80	V
V_{CEO}	Collector-Emitter Voltage		
	: KST55	-60	V
	: KST56	-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	°C
R_{TH}(j-a)	Thermal Resistance junction to Ambient	357	°C/W

Electrical Characteristics T_a=25°C unless otherwise noted

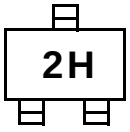
Symbol	Parameter	Test Condition	Min.	Max.	Units
BV_{CEO}	* Collector-Emitter Breakdown Voltage				
	: KST55	I_C= -1mA, I_B=0	-60		V
	: KST56		-80		V
BV_{EBO}	* Emitter-Base Breakdown Voltage	I_E= -100μA, I_C=0	-4		V
I_{CBO}	Collector Cut-off Current	V_{CB}= -60V, I_E=0		-0.1	μA
I_{CEO}	Collector Cut-off Current				
	: KST55	V_{CE}= -60V, I_B=0		-0.1	μA
	: KST56	V_{CE}= -80V, I_B=0		-0.1	μA
h_{FE}	DC Current Gain	V_{CE}= -1V, I_C= -10mA	50		
		V_{CE}= -1V, I_C= -100mA	50		
V_{CE} (sat)	Collector-Emitter Saturation Voltage	I_C= -100mA, I_B= -10mA		-0.25	V
V_{BE} (on)	Base-Emitter On Voltage	V_{CE}= -1V, I_C= -100mA		-1.2	V
f_T	Current Gain Bandwidth Product	V_{CE}= -1V, I_C= -100mA f=100MHz	50		MHz

* Pulse Test: PW≤300μs, Duty Cycle≤2%

Marking Code

Type	KST55	KST56
Mark	2H	2G

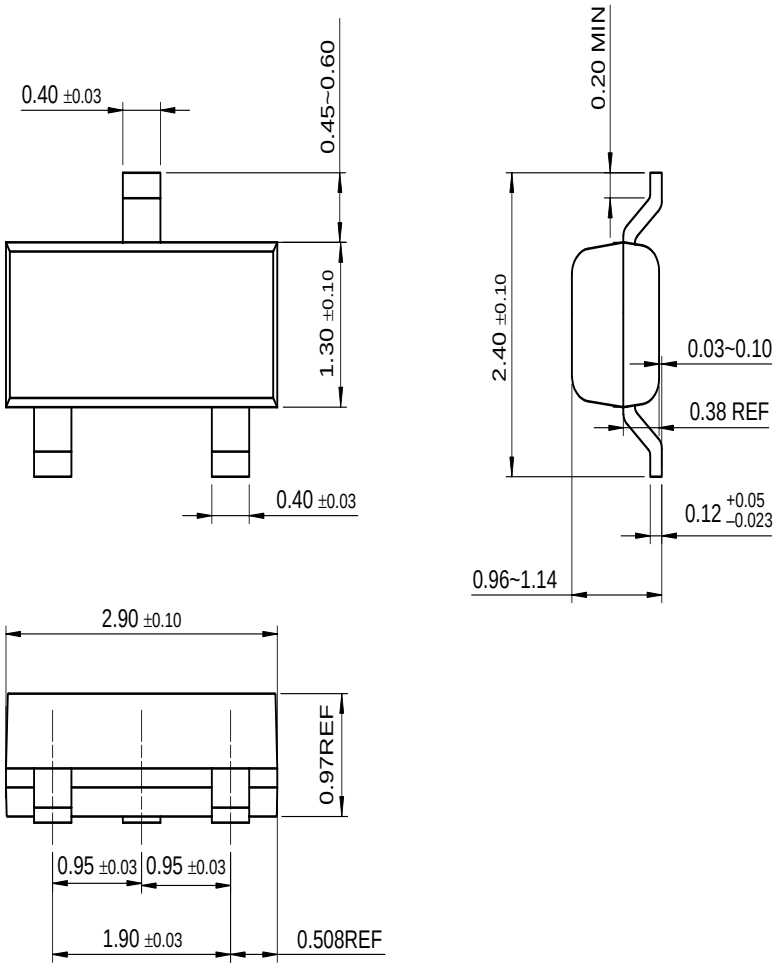
Marking



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Package Dimensions

SOT-23



Dimensions in Millimeters

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Bottomless™	FAST®	LittleFET™	Power247™	SuperSOT™-3
CoolFET™	FASTr™	MicroFET™	PowerTrench®	SuperSOT™-6
CROSSVOLT™	FRFET™	MicroPak™	QFET™	SuperSOT™-8
DOME™	GlobalOptoisolator™	MICROWIRE™	QS™	SyncFET™
EcoSPARK™	GTO™	MSX™	QT Optoelectronics™	TinyLogic™
E^2CMOS™	HiSeC™	MSXPro™	Quiet Series™	TruTranslation™
EnSigna™	I^2C™	OCX™	RapidConfigure™	UHC™
Across the board. Around the world.™		OCXPro™	RapidConnect™	UltraFET®
The Power Franchise™		OPTOLOGIC®	SILENT SWITCHER®	VCX™
Programmable Active Droop™		OPTOPLANAR™	SMART START™	

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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

Datasheet Identification	Product Status	Definition
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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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