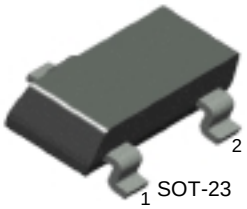
FAIRCHILD
SEMICONDUCTOR TM

KST17

CATV Transistor



SOT-23

1. Base 2. Emitter 3. Collector

NPN Epitaxial Silicon Transistor

Absolute Maximum Ratings T_a=25°C unless otherwise noted

Symbol	Parameter	Value	Units
V_{CBO}	Collector-Base Voltage	20	V
V_{CEO}	Collector-Emitter Voltage	15	V
V_{EBO}	Emitter-Base Voltage	3.0	V
P_C	Collector Dissipation (T_a=25°C)	6.25	mA
	Derate above 25°C	5.0	mA/°C
T_J	Junction Temperature	150	mW
T_{STG}	Storage Temperature	-55 ~ 150	°C
R_{TH} (j-a)	Thermal Resistance junction to Ambient	200	°C/W

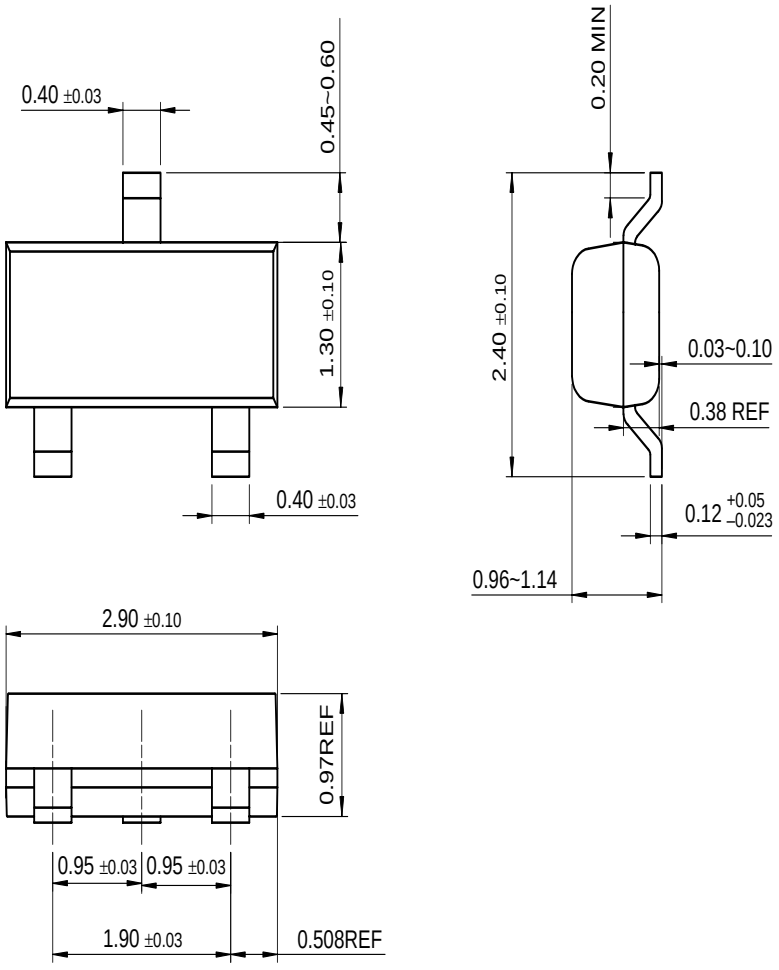
• Refer to KSP17 for graphs

Electrical Characteristics T_a=25°C unless otherwise noted

Symbol	Parameter	Test Condition	Min.	Typ.	Max.	Units
BV_{CBO}	Collector-Base Breakdown Voltage	I_C=100μA, I_E=0	20			V
BV_{CEO}	Collector-Emitter Breakdown Voltage	I_C=1mA, I_B=0	15			V
BV_{EBO}	Emitter-Base Breakdown Voltage	I_E=10μA, I_C=0	3.0			V
I_{CBO}	Collector Cut-off Current	V_{CB}=15V, I_E=0			100	nA
h_{FE}	DC Current Gain	V_{CE}=10V, I_C=5mA	25		250	
V_{CE} (sat)	Collector-Emitter Saturation Voltage	I_C=10mA, I_B=1mA			0.5	V
f_T	Current Gain Bandwidth Product	V_{CE}=10V, I_C=5mA, f=100MHz	800			MHz
C_{ob}	Output Capacitance	V_{CB}=10V, I_E=0, f=1MHz	0.3		0.9	pF
h_{fe}	Small Signal Current Gain	V_{CB}=10V, I_C=5mA, f=1MHz	30			
NF	Noise Figure	V_{CC}=12V, I_C=5mA R_S=50Ω, f=200MHz			6.0	dB
G_{PE}	Power Gain	V_{CC}=12V, I_C=5mA R_S=50Ω, f=200MHz		24		dB

Package Demensions

SOT-23



Dimensions in Millimeters

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