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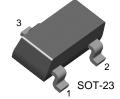
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KST5086/5087

Low Noise Transistor



PNP Epitaxial Silicon Transistor

1. Base 2. Emitter 3. Collector

Absolute Maximum Ratings $T_a=25$ °C unless otherwise noted

Symbol	Parameter	Value	Units
V_{CBO}	Collector-Base Voltage	-50	V
V _{CEO}	Collector-Emitter Voltage	-50	V
V _{EBO}	Emitter-Base Voltage	-3	V
I _C	Collector Current	-50	mA
P _C	Collector Power Dissipation	350	mW
T _{STG}	Storage Temperature	150	°C

$\textbf{Electrical Characteristics} \ \, \textbf{T}_{a} \!\!=\!\! 25^{\circ} \textbf{C} \ \, \text{unless otherwise noted}$

Symbol	Parameter	Test Condition	Min.	Max.	Units
BV _{CBO}	Collector-Base Breakdown Voltage	I _C = -100μA, I _E =0	-50		V
BV _{CEO}	Collector-Emitter Breakdown Voltage	I _C = -1mA, I _B =0	-50		V
I _{CBO}	Collector Cut-off Current	V _{CB} = -20V, I _E =0		-50	nA
h _{FE}	DC Current Gain				
	: KST5086	V _{CE} = -5V, I _C = -100μA	150	500	
	:KST5087		250	800	
	: KST5086	V_{CE} = -5V, I_{C} = -1mA	150		
	: KST5087		250		
	: KST5086	$V_{CE} = -5V, I_{C} = -10mA$	150		
	: KST5087		250		
V _{CE} (sat)	Collector-Emitter Saturation Voltage	I _C = -10mA, I _B = -1mA		-0.3	V
V _{BE} (sat)	Base-Emitter Saturation Voltage	I _C = -10mA, I _B = -1mA		-0.85	V
f _T	Current Gain Bandwidth Product	V _{CE} = -5V, I _C = -500μA f=20MHz	40		MHz
C _{ob}	Output Capacitance	V _{CB} = -5V, I _E =0 f=100MHz		4	pF
NF	Noise Figure				
	: KST5086	I_{C} = -100 μ A, V_{CE} = -5 V		3	dB
	: KST5087	$R_S=3K\Omega$, $f=1KHz$		2	dB
	: KST5087	$V_{CE} = -5V, I_{C} = -20mA$		2	dB
		$R_S=10K\Omega$, $f=10Hz$ to 15.7KHz			

Marking Code

Туре	KST5086	KST5087	
Mark	2P	2Q	

Marking



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Typical Characteristics

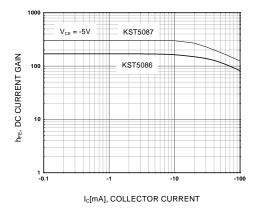


Figure 1. DC current Gain

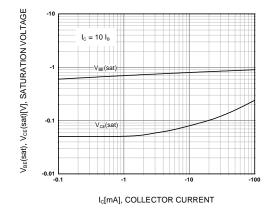


Figure 2. Base-Emitter Saturation Voltage Collector-Emitter Saturation Voltage

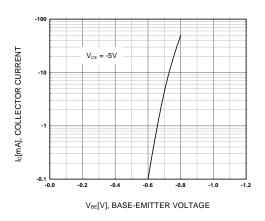


Figure 3. Base-Emitter On Voltage

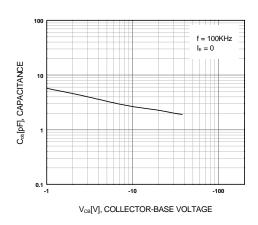


Figure 4. Output Capacitance

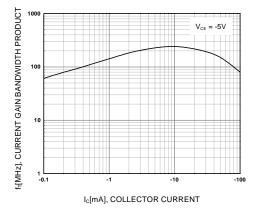
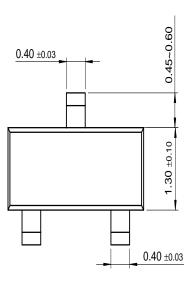


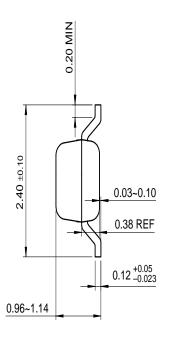
Figure 5. Current Gain Bandwidth Product

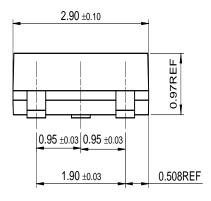
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Package Dimensions

SOT-23







Dimensions in Millimeters

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