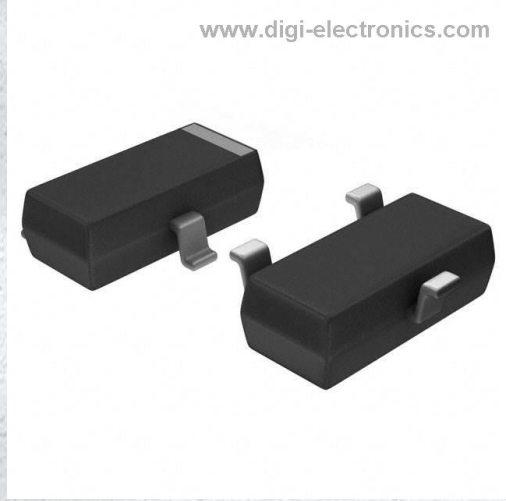
KST5550MTF Datasheet



DiGi Electronics Part Number	KST5550MTF-DG
Manufacturer	onsemi
Manufacturer Product Number	KST5550MTF
Description	TRANS NPN 140V 0.6A SOT23-3
Detailed Description	Bipolar (BJT) Transistor NPN 140 V 600 mA 300MHz 350 mW Surface Mount SOT-23-3

https://www.DiGi-Electronics.com

Tel: +00 852-30501935

RFQ Email: Info@DiGi-Electronics.com

Purchase and inquiry

Manufacturer Product Number:	Manufacturer:
KST5550MTF	onsemi
Series:	Product Status:
-	Obsolete
Transistor Type:	Current - Collector (Ic) (Max):
NPN	600 mA
Voltage - Collector Emitter Breakdown (Max):	Vce Saturation (Max) @ Ib, Ic:
140 V	250mV @ 5mA, 50mA
Current - Collector Cutoff (Max):	DC Current Gain (hFE) (Min) @ Ic, Vce:
100nA (ICBO)	60 @ 10mA, 5V
Power - Max:	Frequency - Transition:
350 mW	300MHz
Operating Temperature:	Mounting Type:
-	Surface Mount
Package / Case:	Supplier Device Package:
TO-236-3, SC-59, SOT-23-3	SOT-23-3
Base Product Number:	
KST55	

Environmental & Export classification

Moisture Sensitivity Level (MSL):	REACH Status:
1 (Unlimited)	REACH Unaffected
ECCN:	HTSUS:
EAR99	8541.21.0075

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Please note: As part of the Fairchild Semiconductor integration, some of the Fairchild orderable part numbers will need to change in order to meet ON Semiconductor's system requirements. Since the ON Semiconductor product management systems do not have the ability to manage part nomenclature that utilizes an underscore (_), the underscore (_) in the Fairchild part numbers will be changed to a dash (-). This document may contain device numbers with an underscore (_). Please check the ON Semiconductor website to verify the updated device numbers. The most current and up-to-date ordering information can be found at www.onsemi.com. Please email any questions regarding the system integration to Fairchild_questions@onsemi.com.

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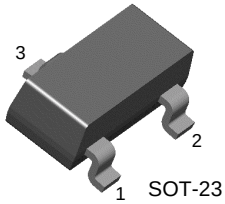
KST5550

High Voltage Transistor



SOT-23

1. Base 2. Emitter 3. Collector

NPN Epitaxial Silicon Transistor

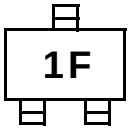
Absolute Maximum Ratings T_a=25°C unless otherwise noted

Symbol	Parameter	Value	Units
V_{CBO}	Collector-Base Voltage	160	V
V_{CEO}	Collector-Emitter Voltage	140	V
V_{EBO}	Emitter-Base Voltage	6	V
I_C	Collector Current	600	mA
P_C	Collector Power Dissipation	350	mW
T_{STG}	Storage Temperature	150	°C

Electrical Characteristics T_a=25°C unless otherwise noted

Symbol	Parameter	Test Condition	Min.	Max.	Units
BV_{CBO}	Collector-Base Breakdown Voltage	I_C=10μA, I_E=0	160		V
BV_{CEO}	Collector-Emitter Breakdown Voltage	I_C=1mA, I_B=0	140		V
BV_{EBO}	Emitter-Base Breakdown Voltage	I_E=10μA, I_C=0	6		V
I_{CBO}	Collector Cut-off Current	V_{CB}=100V, I_E=0		100	nA
I_{EBO}	Emitter Cut-off Current	V_{EB}=4V, I_C=0		50	nA
h_{FE}	DC Current Gain	V_{CE}=5V, I_C=1.0mA V_{CE}=5V, I_C=10mA V_{CE}=5V, I_C=50mA	60 60 20	 250 	
V_{CE} (sat)	Collector-Emitter Saturation Voltage	I_C=10mA, I_B=1mA I_C=50mA, I_B=5mA		0.15 0.25	V V
V_{BE} (sat)	Base-Emitter Saturation Voltage	I_C=10mA, I_B=1mA I_C=50mA, I_B=5mA		1.0 1.2	V V
f_T	Current Gain Bandwidth Product	I_C=10mA, V_{CE}=10V f=100MHz	100	300	MHz
C_{ob}	Output Capacitance	V_{CB}=10V, I_E=0, f=1.0MHz		6.0	pF

Marking



Typical Characteristics

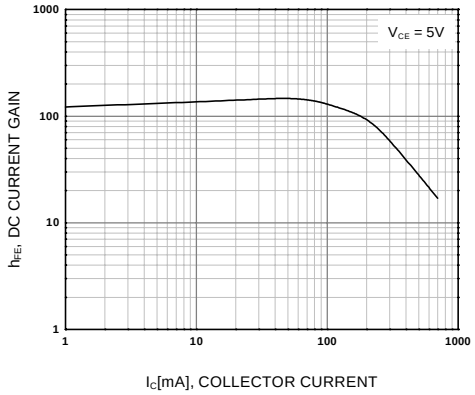


Figure 1. DC current Gain

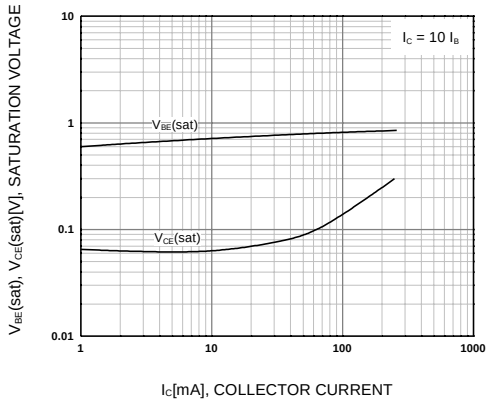


Figure 2. Base-Emitter Saturation Voltage Collector-Emitter Saturation Voltage

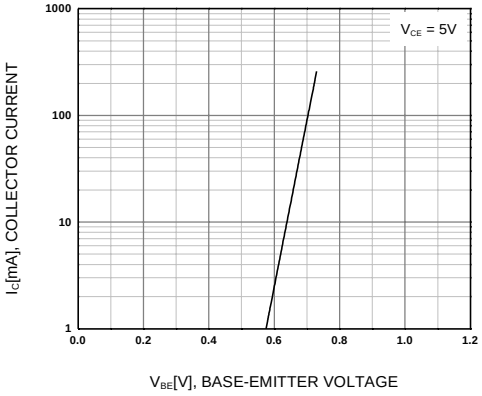


Figure 3. Base-Emitter On Voltage

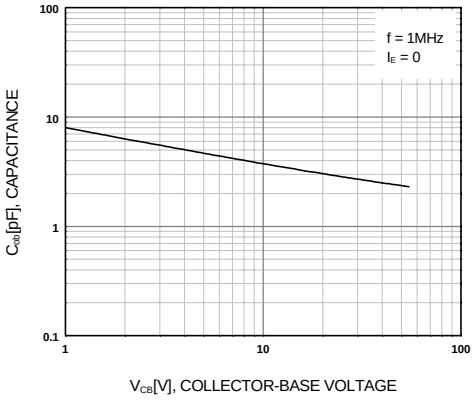


Figure 4. Output Capacitance

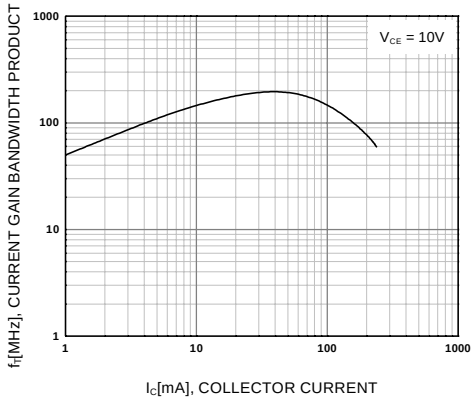
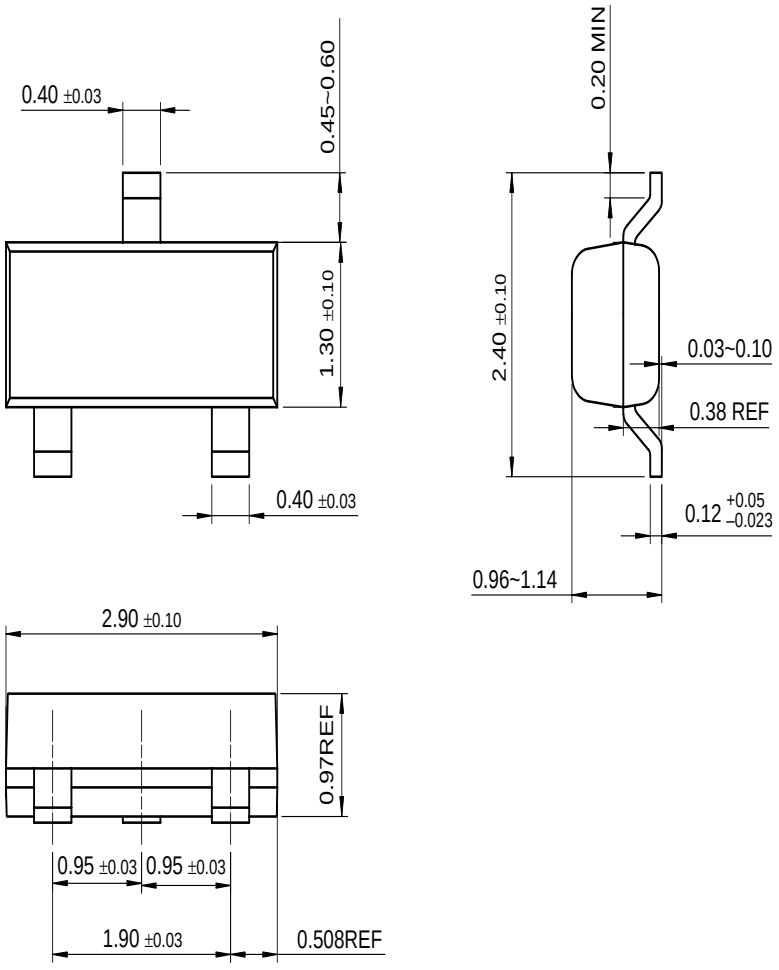


Figure 5. Current Gain Bandwidth Product

Package Dimensions

SOT-23



Dimensions in Millimeters

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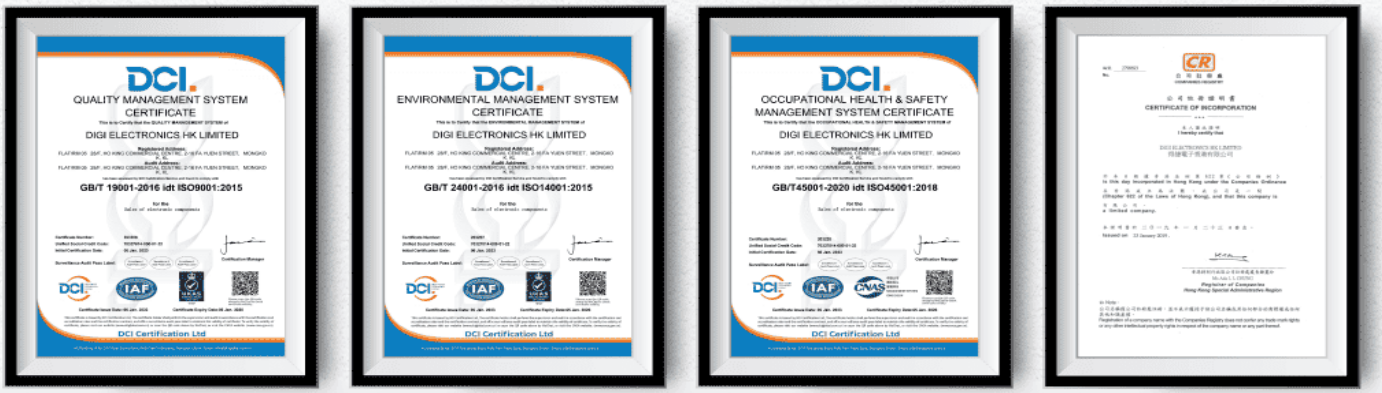

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