KST42/43



SEMICONDUCTOR®

KST42/43

High Voltage Transistor



1. Base 2. Emitter 3. Collector

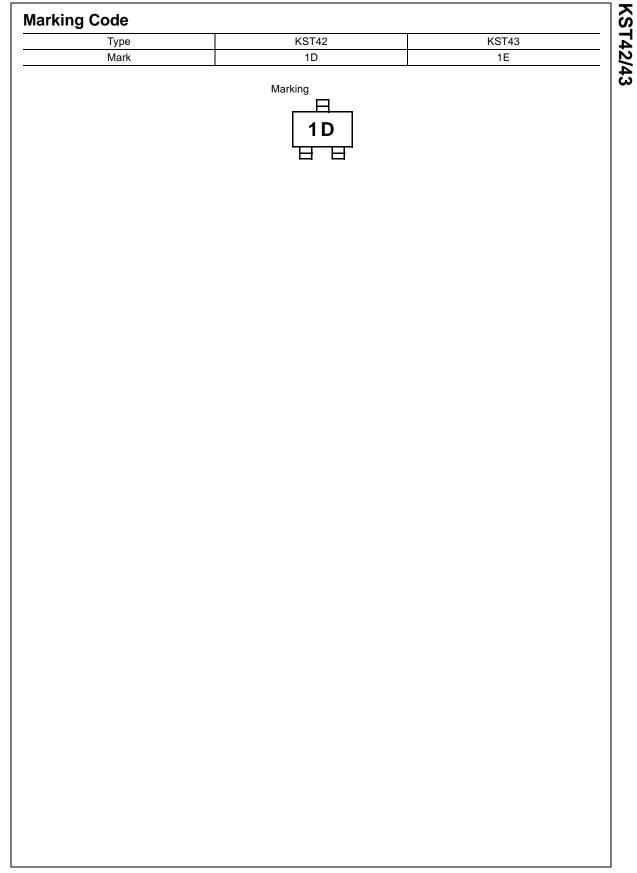
NPN Epitaxial Silicon Transistor

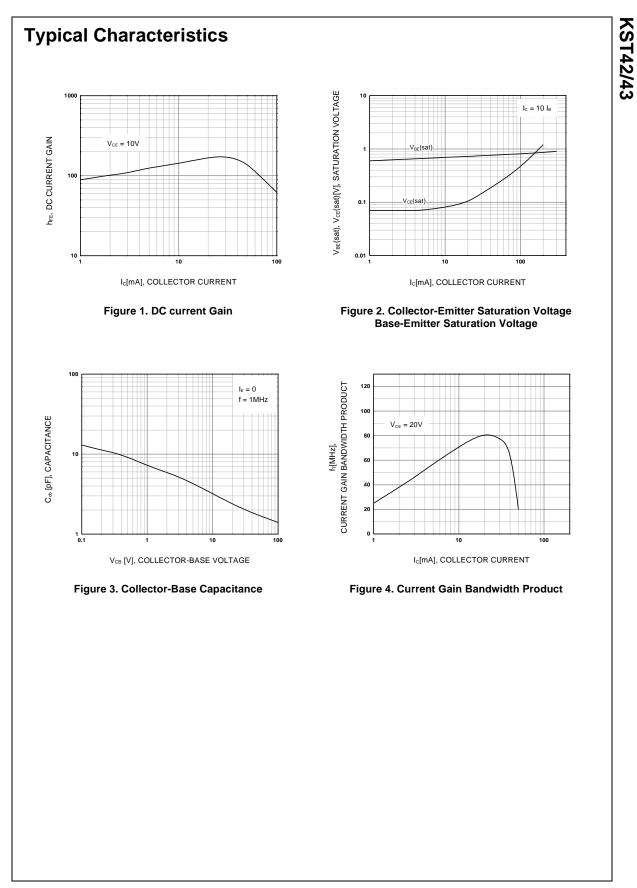
Absolute Maximum Ratings Ta=25°C unless otherwise noted

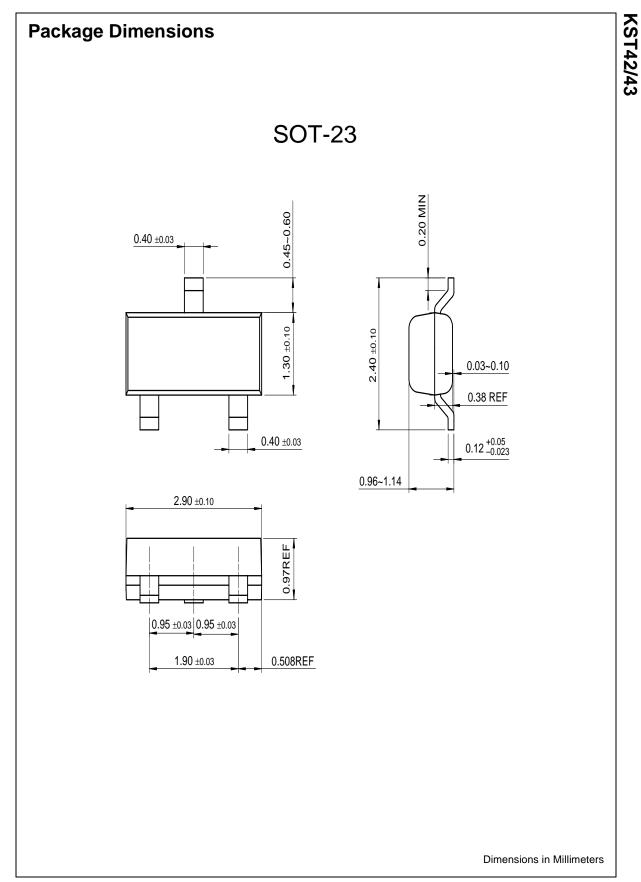
Symbol	Parameter	Value	Units
V _{CBO}	Collector Base Voltage		
	: KST42	300	V
	: KST43	200	V
V _{CEO}	Collector-Emitter Voltage		
	: KST42	300	V
	: KST43	200	V
V _{EBO}	Emitter-Base Voltage	6	V
lc	Collector Current	500	mA
P _C	Collector Power Dissipation	350	mW
T _{STG}	Storage Temperature	150	°C
R _{TH} (j-a)	Thermal Resistance junction to Ambient	357	°C/W

Electrical Characteristics $T_a=25^{\circ}C$ unless otherwise noted

Symbol	Parameter	Test Condition	Min.	Max.	Units
BV _{CBO}	Collector-Emitter Breakdown Voltage : KST42 : KST43	Ι _C =100μΑ, Ι _Ε =0	300 200		V
BV _{CEO}	* Collector -Emitter Breakdown Voltage : KST42 : KST42	I _C =1mA, I _B =0	300 200		V V
BV _{EBO}	Emitter-Base Breakdown Voltage	I _E =100μA, I _C =0	6		V
I _{CBO}	Collector Cut-off Current	V _{CB} =200V, I _E =0		0.1	μΑ
I _{EBO}	Emitter Cut-off Current	V _{CB} =5V, I _C =0		0.1	μA
h _{FE}	* DC Current Gain	V _{CE} =10V, I _C =1mA V _{CE} =10V, I _C =10mA V _{CE} =10V, I _C =30mA	25 40 40		
V _{CE} (sat)	* Collector-Emitter Saturation Voltage	I _C =20mA, I _B =2mA		0.5	V
V _{BE} (sat)	* Base-Emitter Saturation Voltage	I _C =20mA, I _B =2mA		0.9	V
C _{ob}	Output Capacitance : KST42 : KST43	V _{CB} =20V, I _E =0 f=1MHz		3 4	pF pF
f _T	Current Gain Bandwidth Product	V _{CE} =20V, I _C =10mA f=100MHz	50		MHz







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Datasheet Identification	Product Status	Definition
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