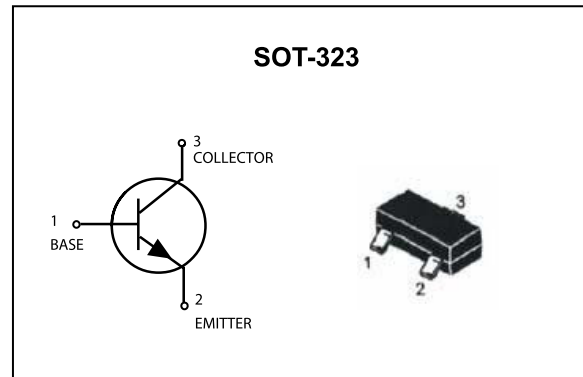


FEATURES

- Epitaxial planar die construction
- High stability and high reliability
- Compliant to Halogen-free

MECHANICAL DATA

- Case: SOT-323
- Molding compound: UL flammability classification rating 94V-0
- Terminals: Tin-plated; solderability per MIL-STD-202 Method 208
- Marking: K4N



Maximum Ratings ($T_A = 25^\circ\text{C}$ unless otherwise noted)

Parameter	Symbol	Value	Unit
Collector-Base Voltage	V_{CBO}	180	V
Collector-Emitter Breakdown Voltage	V_{CEO}	160	V
Emitter-Base Breakdown Voltage	V_{EBO}	6	V
Collector Current (Continuous)	I_C	0.6	A
Power Dissipation	P_D	0.2	W
Junction Temperature Range	T_J	-55 ~ +150	$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-55 ~ +150	$^\circ\text{C}$

Electrical Characteristics (T_A=25°C Unless otherwise specified)

Parameter	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Collector-Base Breakdown Voltage	V _{(BR)CBO}	I _C = 100μA, I _E = 0	180	-	-	V
Collector-Emitter Breakdown Voltage	V _{(BR)CEO}	I _C = 1mA, I _B = 0	160	-	-	V
Emitter-Base Breakdown Voltage	V _{(BR)EBO}	I _E = 10μA, I _C = 0	6	-	-	V
Collector Cut-off Current	I _{CBO}	V _{CB} = 120V, I _E = 0	-	-	50	nA
Emitter Cut-off Current	I _{EBO}	V _{EB} = 4V, I _C = 0	-	-	50	nA
DC Current Gain	h _{FE}	V _{CE} = 5V, I _C = 1mA	80	-	-	-
		V _{CE} = 5V, I _C = 10mA	80	-	300	-
		V _{CE} = 5V, I _C = 50mA	30	-	-	-
Collector-emitter Saturation Voltage	V _{CE(sat)}	I _C = 50mA, I _B = 5mA	-	-	0.2	V
Base-emitter Saturation Voltage	V _{BE(sat)}	I _C = 50mA, I _B = 5mA	-	-	1	V
Current-Gain— Bandwidth Product	f _T	I _C = 10mA, V _{CE} = 10V f = 100MHz	80	-	-	MHz

Typical Characteristics

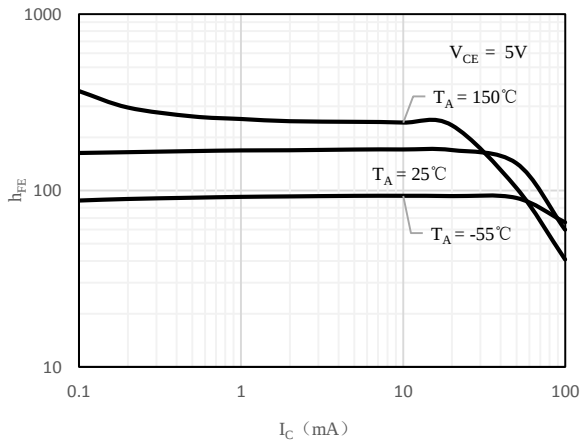


Fig 1 h_{FE} vs. I_C

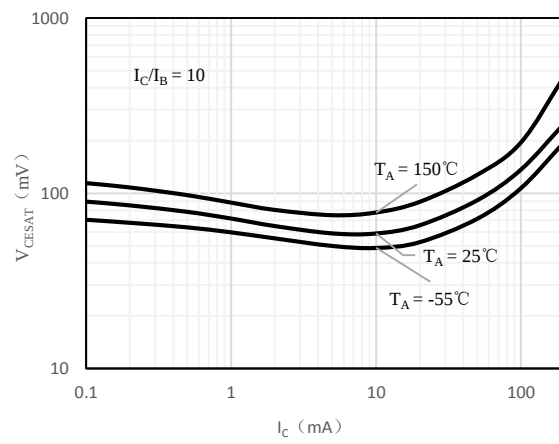


Fig 2 $V_{CE(sat)}$ vs. I_C

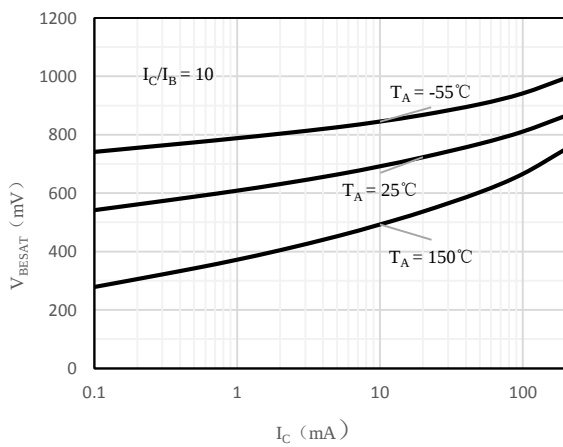


Fig 3 $V_{BE(sat)}$ vs. I_C

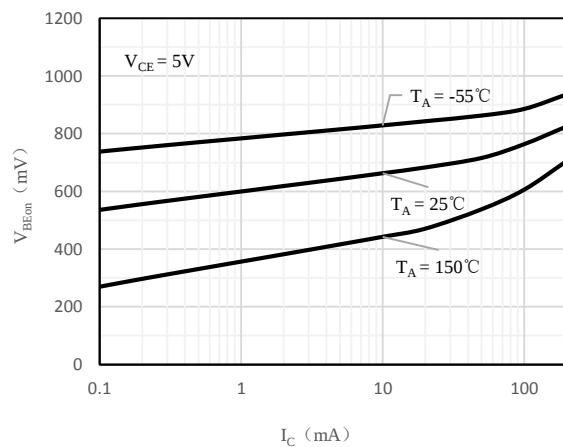
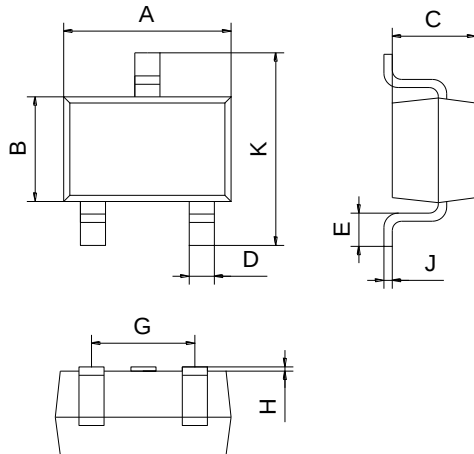


Fig 4 $V_{BE(on)}$ vs. I_C

SOT-323 Package Outline Dimensions



SOT-323		
Dimension	Min.	Max.
A	1.80	2.20
B	1.15	1.35
C	0.90	1.10
D	0.15	0.40
E	0.25	0.46
G	1.20	1.40
H	0.00	0.10
J	0.05	0.25
K	2.10	2.45

SOT-323 Suggested Pad Layout

