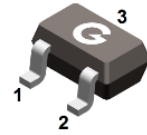
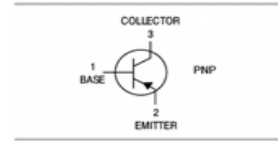


Features

- Epitaxial planar die construction
- Complement to TMMSTA06
- Halogen free
- Qualified to AEC-Q101 standards for high reliability

HF



SOT-323

Mechanical Data

- Case: SOT-323
- Molding Compound: UL Flammability Classification Rating 94V-0
- Terminals: Matte tin-plated leads; solderability-per MIL-STD-202, Method 208

Ordering Information

Part Number	Package	Shipping Quantity	Marking Code
TMMSTA56	SOT-323	3000 pcs / Tape & Reel	K2G

Maximum Ratings (@ T_A = 25°C unless otherwise specified)

Parameter	Symbol	Value	Unit
Collector-Base Voltage	V _{CBO}	-80	V
Collector-Emitter Breakdown Voltage	V _{CEO}	-80	V
Emitter-Base Breakdown Voltage	V _{EBO}	-4	V
Collector Current (Continuous)	I _C	-0.5	A

Thermal Characteristics

Parameter	Symbol	Value	Unit
Power Dissipation	P _D	0.2	W
Junction Temperature	T _J	-55 ~ +150	°C
Storage Temperature Range	T _{STG}	-55 ~ +150	°C

Electrical Characteristics (@ $T_A = 25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	$I_C = -100\mu\text{A}, I_E = 0$	-80	-	-	V
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C = -1\text{mA}, I_B = 0$	-80	-	-	V
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	$I_E = -100\mu\text{A}, I_C = 0$	-4	-	-	V
Collector Cut-off Current	I_{CBO}	$V_{CB} = -80\text{V}, I_E = 0$	-	-	-0.1	μA
Collector Cut-off Current	I_{CEO}	$V_{CE} = -60\text{V}, I_B = 0$	-	-	-0.1	μA
DC Current Gain	h_{FE}	$V_{CE} = -1\text{V}, I_C = -10\text{mA}$	100	-	-	-
		$V_{CE} = -1\text{V}, I_C = -100\text{mA}$	100	-	-	-
Collector-emitter Saturation Voltage	$V_{CE(sat)}$	$I_C = -100\text{mA}, I_B = -10\text{mA}$	-	-	-0.25	V
Base-emitter On Voltage	$V_{BE(on)}$	$V_{CE} = -1\text{V}, I_C = -100\text{mA}$	-	-	-1.2	V
Current-Gain—Bandwidth Product	f_T	$V_{CE} = -1\text{V}, I_C = -100\text{mA}$ $f = 100\text{MHz}$	50	-	-	MHz

Ratings and Characteristic Curves (@ $T_A = 25^\circ\text{C}$ unless otherwise specified)

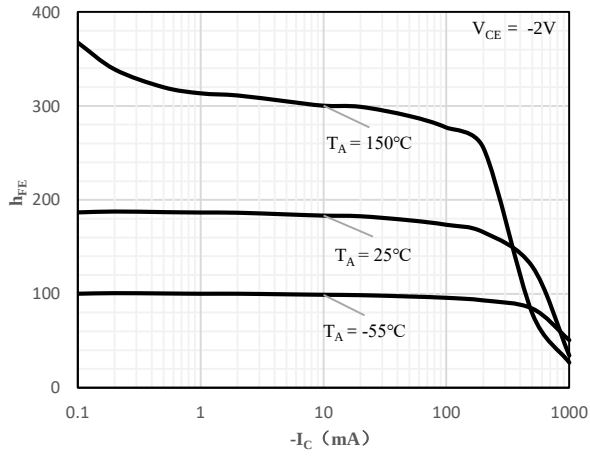


Fig 1 h_{FE} vs. I_C

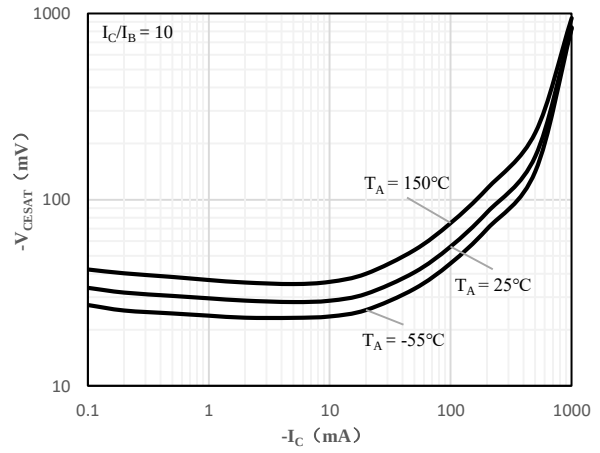


Fig 2 $V_{CE(sat)}$ vs. I_C

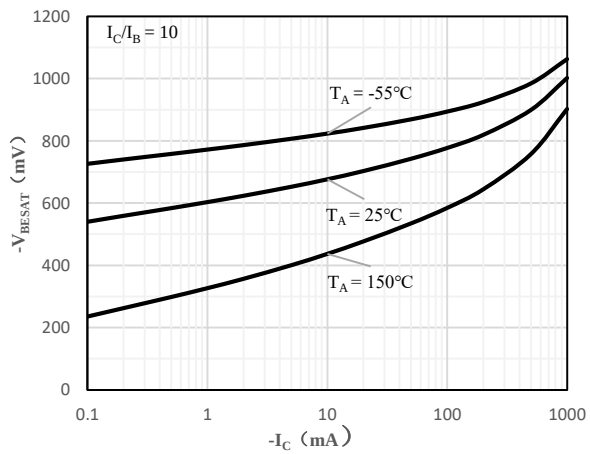


Fig 3 $V_{BE(sat)}$ vs. I_C

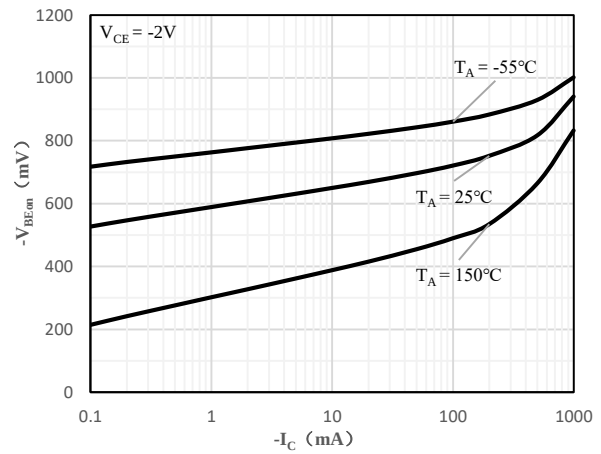
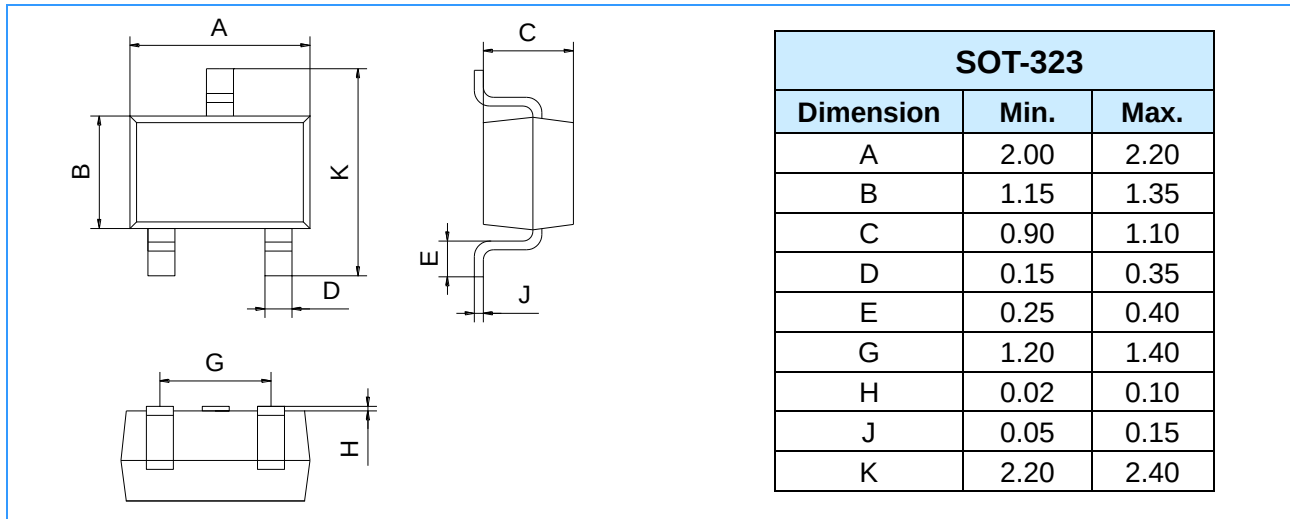
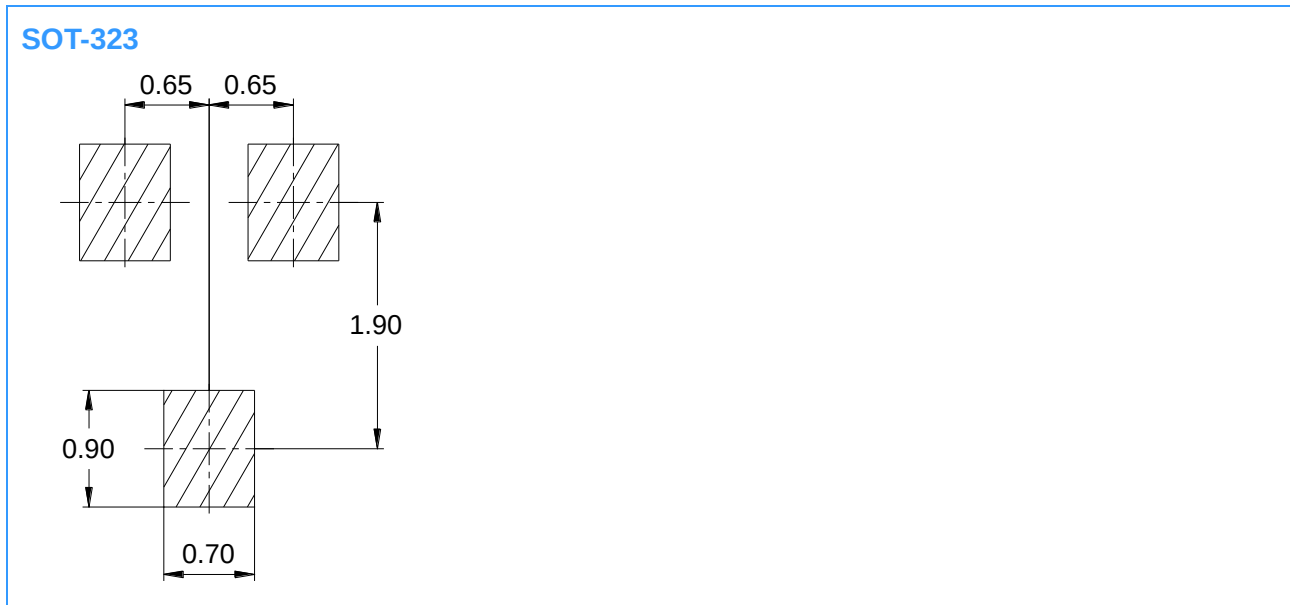


Fig 4 $V_{BE(on)}$ vs. I_C

Package Outline Dimensions (Unit: mm)



Package Outline Dimensions (Unit: mm)



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