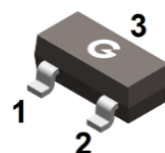
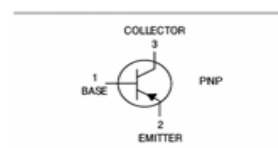


Features

- High voltage and high current
- Excellent h_{FE} linearity
- Complementary to 2SC2712
- RoHS compliant with Halogen-free

HF



SOT-23

Mechanical Data

- Case: SOT-23
- 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
2SA1162-O	SOT-23	3000 pcs / Tape & Reel	SO
2SA1162-Y	SOT-23	3000 pcs / Tape & Reel	SY
2SA1162-G	SOT-23	3000 pcs / Tape & Reel	SG

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

Parameter	Symbol	Value	Unit
Collector-Base Breakdown Voltage	V_{CBO}	-50	V
Collector-Emitter Breakdown Voltage	V_{CEO}	-50	V
Emitter-Base Breakdown Voltage	V_{EBO}	-5	V
Continuous Collector Current	I_C	-150	mA
Peak Collector Current	I_{CM}	-200	mA
Base Current	I_B	-30	mA

Thermal Characteristics

Parameter	Symbol	Value	Unit
Power Dissipation($T_A = 25^\circ\text{C}$)	P_D	150	mW
Thermal Resistance Junction-to-Air ^{*1}	$R_{\theta JA}$	290	$^\circ\text{C/W}$
Thermal Resistance Junction-to-Case ^{*1}	$R_{\theta JC}$	190	$^\circ\text{C/W}$
Thermal Resistance Junction-to-Lead ^{*1}	$R_{\theta JL}$	210	$^\circ\text{C/W}$
Junction Temperature Range	T_J	-55 ~ +150	$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-55 ~ +150	$^\circ\text{C}$

Note 1: The data tested by surface mounted on a 1 inch² FR-4 board with 2OZ copper

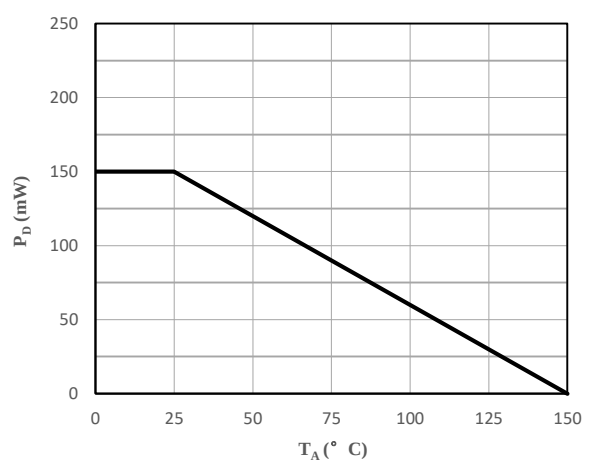
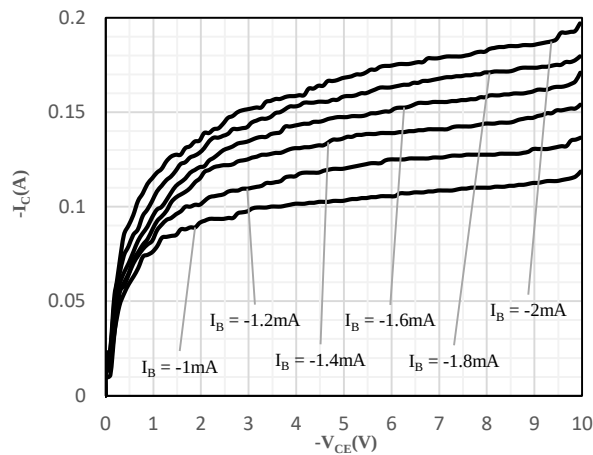
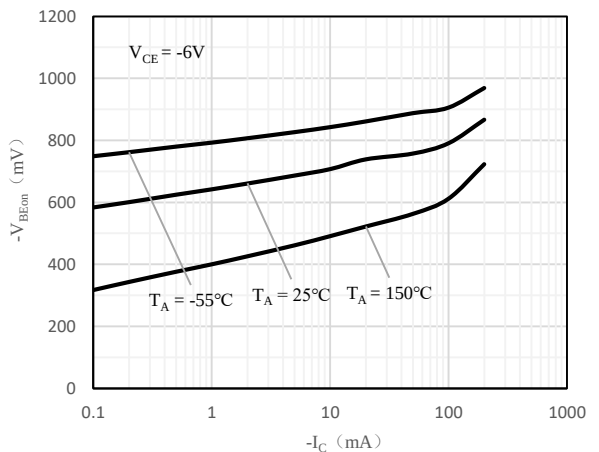
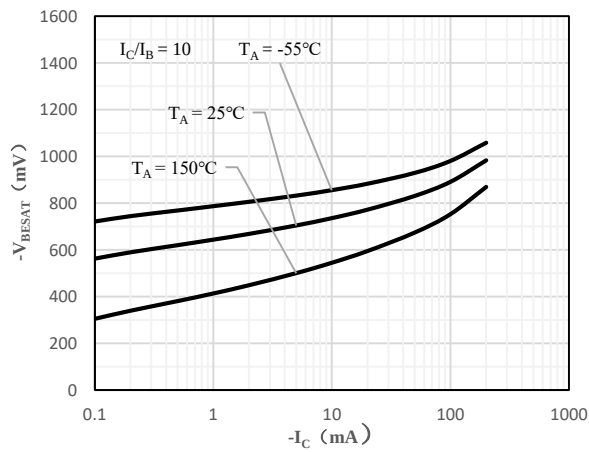
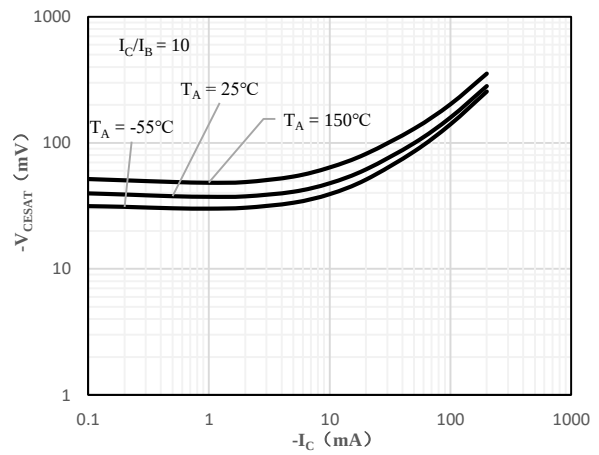
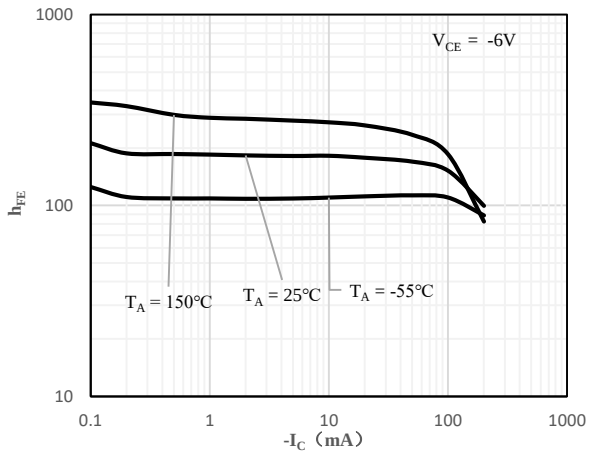
Electrical Characteristics (@ $T_A = 25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	$I_C = -100\mu\text{A}$, $I_E = 0$	-50	-	-	V
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C = -1\text{mA}$, $I_B = 0$	-50	-	-	V
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	$I_E = -100\mu\text{A}$, $I_C = 0$	-5	-	-	V
Collector Cut-off Current	I_{CBO}	$V_{CB} = -50\text{V}$, $I_E = 0$	-	-	-0.1	μA
Emitter Cut-off Current	I_{EBO}	$V_{EB} = -5\text{V}$, $I_C = 0$	-	-	-0.1	μA
DC Current Gain	h_{FE}	$V_{CE} = -6\text{V}$, $I_C = -2\text{mA}$	70	-	400	-
Collector-emitter Saturation Voltage	$V_{CE(sat)}$	$I_C = -100\text{mA}$, $I_B = -10\text{mA}$	-	-0.1	-0.3	V
Base-emitter Saturation Voltage	$V_{BE(sat)}$	$I_C = -100\text{mA}$, $I_B = -10\text{mA}$	-	-	-1.1	V
Transition Frequency	f_T	$I_C = -1\text{mA}$, $V_{CE} = -10\text{V}$	80	-	-	MHz
Output Capacitance	C_{ob}	$V_{CB} = -10\text{V}$, $I_E = 0\text{A}$, $f = 1\text{MHz}$	-	4	7	pF
Noise Figure	NF	$V_{CE} = -6\text{V}$, $I_C = -0.1\text{mA}$, $f = 1\text{kHz}$	-	1.0	10	dB

Classification of h_{FE}

Rank	O	Y	G
Range	70-140	120-240	200-400
Marking	SO	SY	SG

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



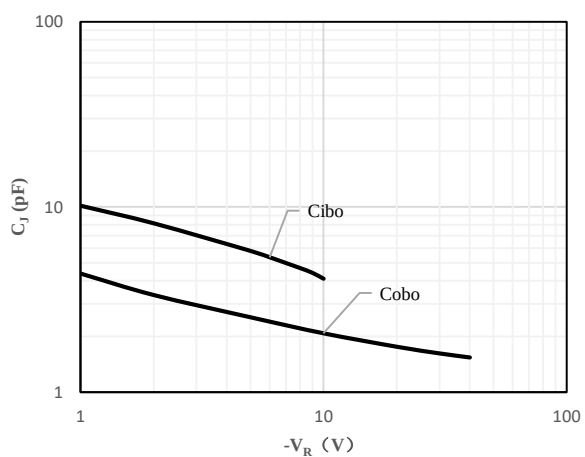
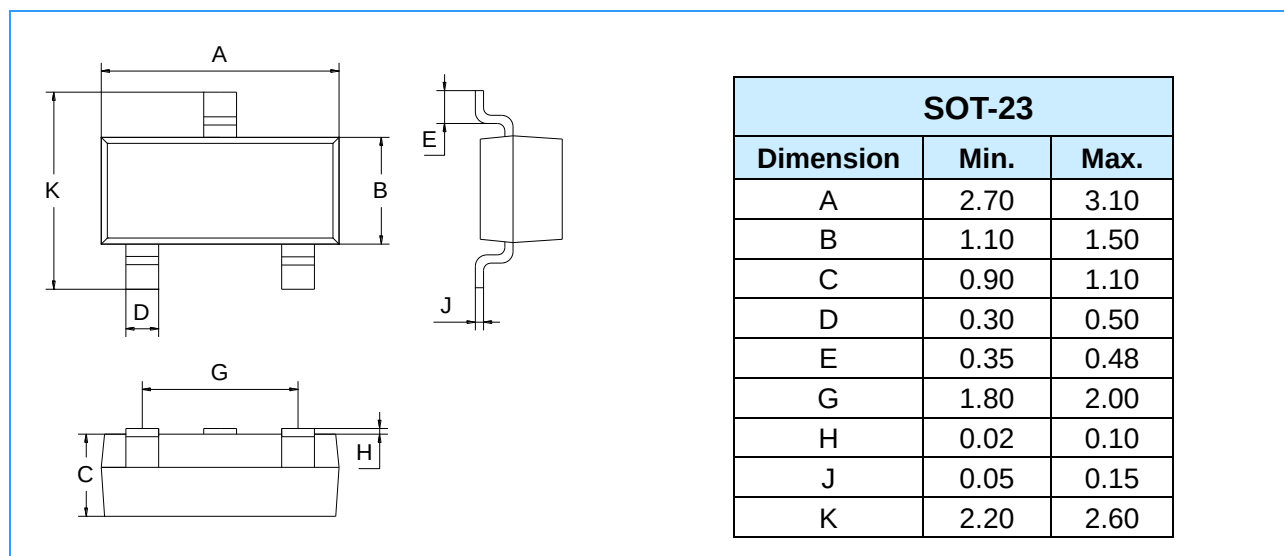


Fig 7 C_J vs. V_R

Package Outline Dimensions (Unit: mm)



Package Outline Dimensions (Unit: mm)

