

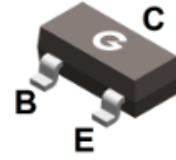
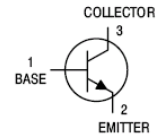
Features

- Low saturation voltage
- Excellent h_{FE} linearity
- High collector dissipation
- RoHS compliant with Halogen-free

HF

Mechanical Data

- Case: SOT-23
- Molding compound: UL flammability classification rating 94V-0
- Terminals: Tin-plated; solderability per MIL-STD-202, Method 208



SOT-23

Ordering Information

Part Number	Package	Shipping Quantity	Marking Code
D882C-R	SOT-23	3000 pcs / Tape & Reel	D882
D882C-O	SOT-23	3000 pcs / Tape & Reel	D882
D882C-P	SOT-23	3000 pcs / Tape & Reel	D882
D882C-E	SOT-23	3000 pcs / Tape & Reel	D882

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

Parameter	Symbol	Value	Unit
Collector-Base Breakdown Voltage	V_{CBO}	40	V
Collector-Emitter Breakdown Voltage	V_{CEO}	30	V
Emitter-Base Breakdown Voltage	V_{EBO}	5	V
Continuous Collector Current	I_C	3	A
Peak Collector Current ($t_p \leq 1\text{ms}$)	I_{CM}	5	A

Thermal Characteristics

Parameter	Symbol	Value	Unit
Power Dissipation ($T_A = 25^\circ\text{C}$)	P_D	0.35	W
Thermal Resistance Junction-to-Air	$R_{\theta JA}$	357	$^\circ\text{C/W}$
Junction Temperature	T_J	-55 ~ +150	$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-55 ~ +150	$^\circ\text{C}$

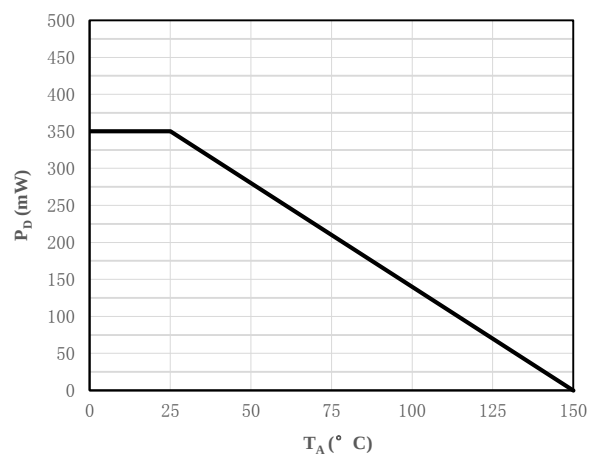
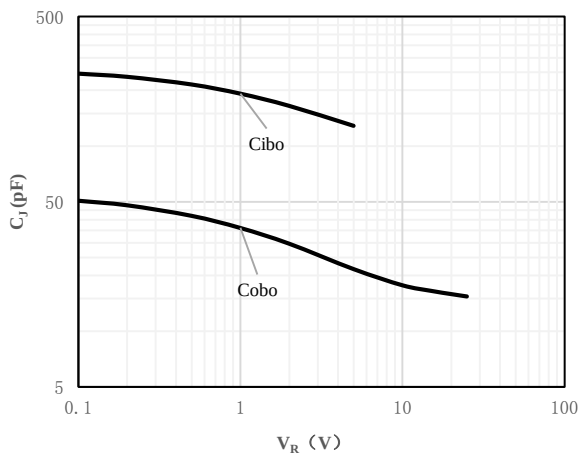
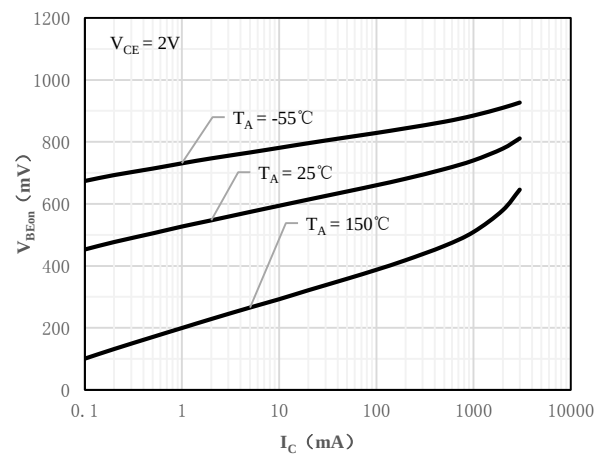
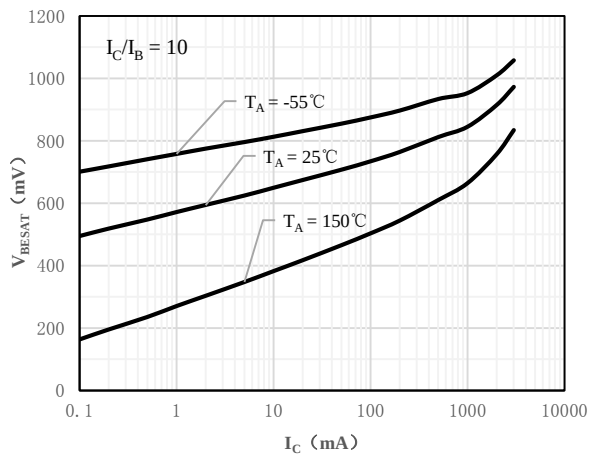
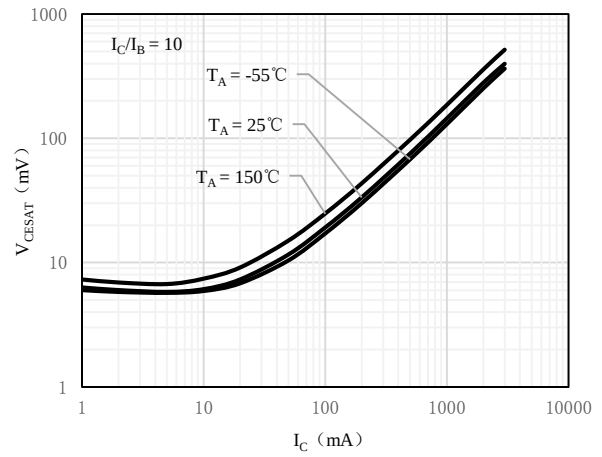
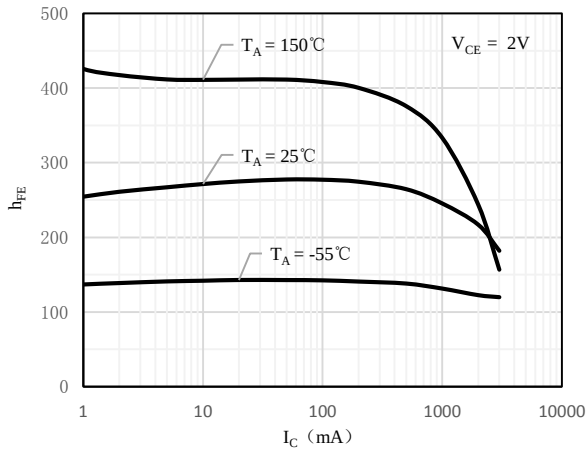
Electrical Characteristics (@ $T_A = 25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	$I_C = 100\mu\text{A}$, $I_E = 0$	40	-	-	V
Collector-Emitter Breakdown Voltage	$V_{CEO(SUS)}$	$I_C = 10\text{mA}$, $I_B = 0$	30	-	-	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}	$V_{CB} = 30\text{V}$, $I_E = 0$	-	-	1	μA
Base Cut-off Current	I_{EBO}	$V_{EB} = 3\text{V}$, $I_C = 0$	-	-	1	μA
DC Current Gain	h_{FE}	$V_{CE} = 2\text{V}$, $I_C = 20\text{mA}$	30	-	-	-
		$V_{CE} = 2\text{V}$, $I_C = 1\text{A}$	60	-	400	-
Collector-emitter Saturation Voltage	$V_{CE(sat)}$	$I_C = 2\text{A}$, $I_B = 0.2\text{A}$	-	0.3	0.5	V
Base-emitter Saturation Voltage	$V_{BE(sat)}$	$I_C = 2\text{A}$, $I_B = 0.2\text{A}$	-	1.0	2	V
Output Capacitance	C_{OBO}	$V_{CB} = 10\text{V}$, $I_E = 0$, $f = 1\text{MHz}$	-	18	-	pF
Transition Frequency	f_T	$I_C = 0.1\text{A}$, $V_{CE} = 5\text{V}$	-	90	-	MHZ

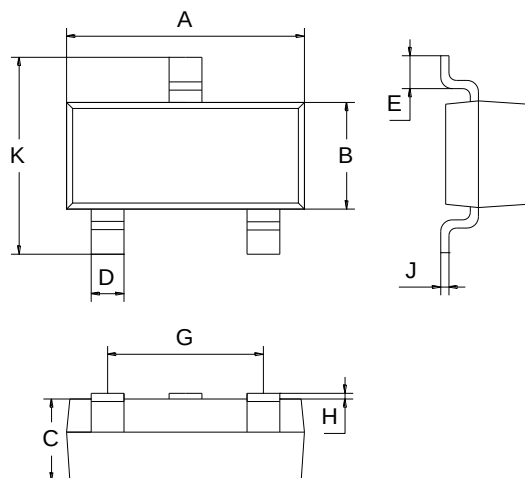
Classification of h_{FE}

Rank	R	O	P	E
Range	60-120	100-200	160-320	200-400

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



Package Outline Dimensions (Unit: mm)



SOT-23		
Dimension	Min.	Max.
A	2.70	3.10
B	1.10	1.50
C	0.90	1.10
D	0.30	0.50
E	0.35	0.48
G	1.80	2.00
H	0.02	0.10
J	0.05	0.15
K	2.20	2.60

Package Outline Dimensions (Unit: mm)

SOT-23

