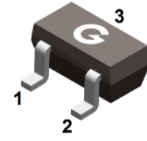
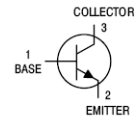


Features

- High voltage and high current
- Complementary PNP Type Available (2SA1832)
- RoHS compliant with Halogen-free

HF



SOT-523

Mechanical Data

- Case: SOT-523
- Molding compound: UL flammability classification rating 94V-0
- Terminal s: Tin-plated; solderability per MIL-STD-202, Method 208

Ordering Information

Part Number	Package	Shipping Quantity	Marking Code
2SC4738-Y	SOT-523	3000 pcs / Tape Reel	LY
2SC4738-G	SOT-523	3000 pcs / Tape Reel	LG
2SC4738-B	SOT-523	3000 pcs / Tape Reel	LB

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

Parameter	Symbol	Value	Unit
Collector-Base Voltage	V _{CB0}	60	V
Collector-Emitter Voltage	V _{CEO}	50	V
Emitter-Base Voltage	V _{EBO}	5	V
Collector Current (Continuous)	I _C	150	mA
Collector Current (Peak)	I _{CM}	200	mA
Base Current	I _B	30	mA

Thermal Characteristics

Parameter	Symbol	Value	Unit
Power Dissipation	P _D	100	mW
Thermal Resistance (Junction-to-Ambient)	R _{θJA}	1250	°C/W
Operating 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	$V_{(BR)CBO}$	$I_C = 50\mu\text{A}, I_B = 0$	60	-	-	V
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C = 100\mu\text{A}, I_B = 0$	50	-	-	V
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	$I_E = 50\mu\text{A}, I_C = 0$	5	-	-	V
Collector Cut-off Current	I_{CBO}	$V_{CB} = 60\text{V}, I_E = 0$	-	-	100	nA
Emitter-base Cut-off Current	I_{EBO}	$V_{EB} = 5\text{V}, I_C = 0$	-	-	100	nA
DC Current Gain	h_{FE}	$V_{CE} = 6\text{V}, I_C = 2\text{mA}$	120	-	700	-
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C = 100\text{mA}, I_B = 10\text{mA}$	-	-	0.25	V
Transition Frequency	f_T	$V_{CE} = 10\text{V}, I_C = 1\text{mA}$	80	-	-	MHz
Collector Output Capacitance	C_{ob}	$V_{CB} = 10\text{V}, I_E = 0$ $f = 1\text{MHz}$	-	-	3.5	pF

Classification of h_{FE}

Rank	Y	G	B
Range	120-240	200-400	350-700
MARKING	LY	LG	LB

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

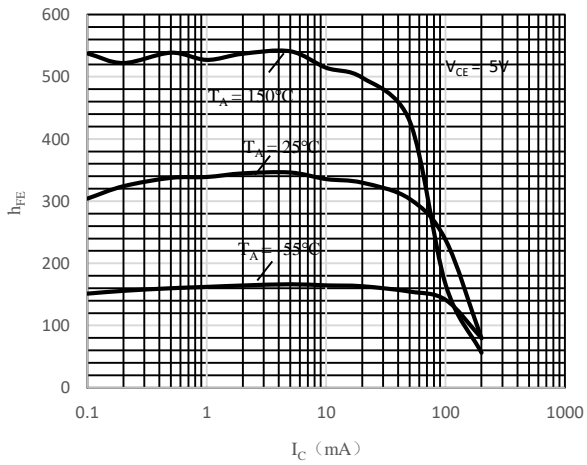


Fig 1 h_{FE} vs. I_C

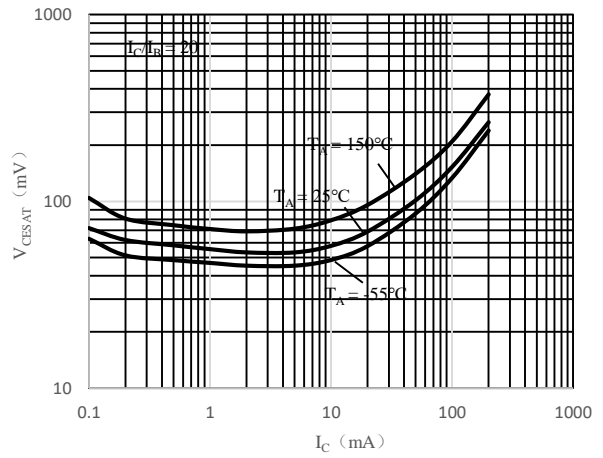


Fig 2 $V_{CE(sat)}$ vs. I_C

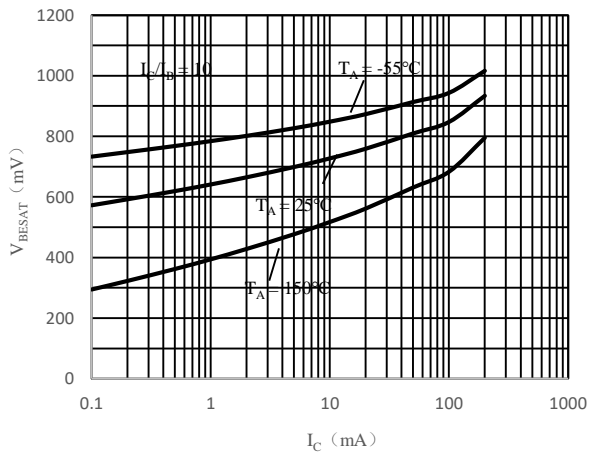


Fig 3 $V_{BE(sat)}$ vs. I_C

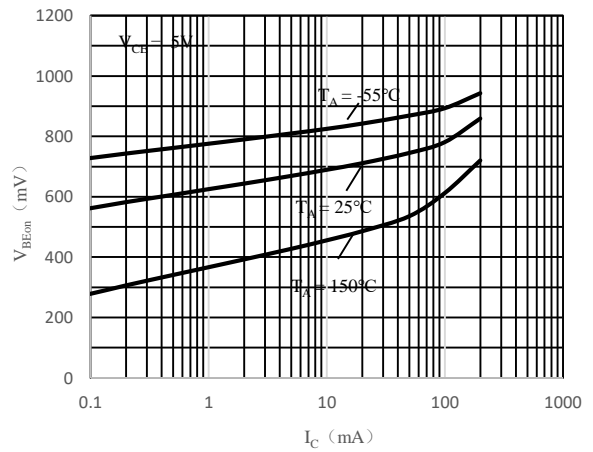
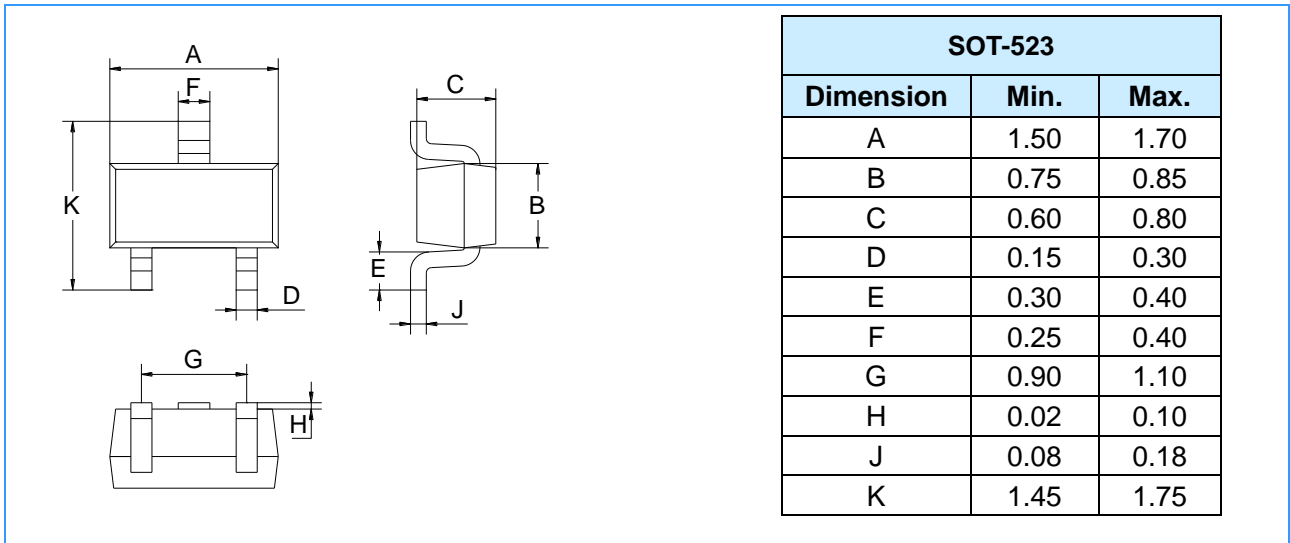


Fig 4 $V_{BE(on)}$ vs. I_C

Package Outline Dimensions (Unit: mm)



Mounting Pad Layout (Unit: mm)

