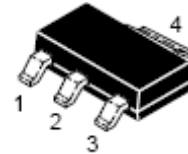
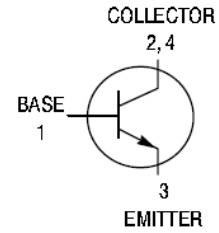




Features

- Low Collector-Emitter saturation voltage $V_{CE(sat)}$ and corresponding low $R_{CE(sat)}$
- High collector current capability
- High collector current gain
- Improved efficiency due to reduced heat generation



SOT-223

Mechanical Data

- Case: SOT-223
- Molding compound: UL flammability classification rating 94V-0
- Terminals: Tin-plated; solderability per MIL-STD-202, Method 208

Ordering Information

Part Number	Package	Shipping Quantity	Marking Code
GT4350R	SOT-223	4000 pcs / Tape & Reel	T4350

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
Collector Current (Continuous)	I_C	3	A

Thermal Characteristics

Parameter	Symbol	Value	Unit
Power Dissipation ^{*1}	P_D	1.15	W
Thermal Resistance Junction-to-Air	$R_{\theta JA}$	227	$^\circ\text{C/W}$
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 = 10μA, I _E = 0	50	-	-	V
Collector-Emitter Breakdown Voltage	V _{(BR)CEO}	I _C = 1mA, I _B = 0	50	-	-	V
Emitter-Base Breakdown Voltage	V _{(BR)EBO}	I _E = 10μA, I _C = 0	5	-	-	V
Collector Cut-off Current	I _{CBO}	V _{CB} = 50V, I _E = 0, T _J = 25°C	-	-	0.1	μA
		V _{CB} = 50V, I _E = 0, T _J = 150°C	-	-	50	μA
Emitter Cut-off Current	I _{EBO}	V _{EB} = 5V, I _C = 0	-	-	100	nA
DC Current Gain	h _{FE}	V _{CE} = 2V, I _C = 100mA	300	-	-	-
		V _{CE} = 2V, I _C = 500mA	300	-	-	-
		V _{CE} = 2V, I _C = 1A	300	-	-	-
		V _{CE} = 2V, I _C = 2A	200	-	-	-
		V _{CE} = 2V, I _C = 3A	100	-	-	-
Collector-emitter Saturation Voltage	V _{CE(sat)}	I _C = 500mA, I _B = 50mA	-	-	80	mV
		I _C = 1A, I _B = 50mA	-	-	160	
		I _C = 2A, I _B = 100mA	-	-	280	
		I _C = 2A, I _B = 200mA	-	-	260	
		I _C = 3A, I _B = 300mA	-	-	370	
Base-emitter Saturation Voltage	V _{BE(sat)}	I _C = 2A, I _B = 100mA	-	-	1.1	V
		I _C = 3A, I _B = 300mA	-	-	1.2	
Base-emitter Voltage	V _{BE(on)}	I _C = 1A, V _{CE} = 2V	-	-	1.2	V
Transition Frequency	f _T	V _{CE} = 5V, I _C = 100mA f = 100MHz	100	-	-	MHz
Output Capacitance	C _{ob}	V _{CB} = 10V, I _E = I _e = 0 f = 1MHz	-	-	25	pF

Note 1: Device mounted on a printed-circuit board, single-sided copper, tinplated, mounting pad for collector 1 cm²



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

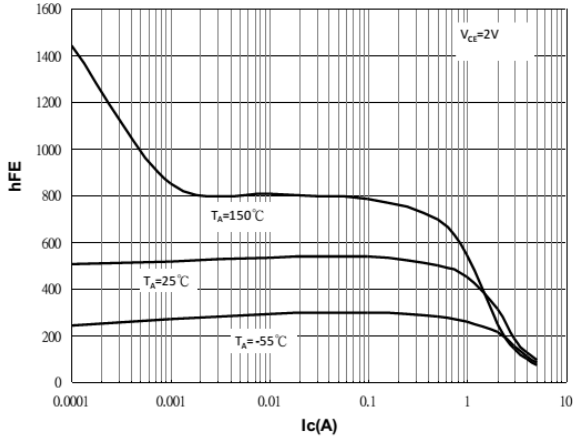


FIG.1 - DC current gain as a function of collector current

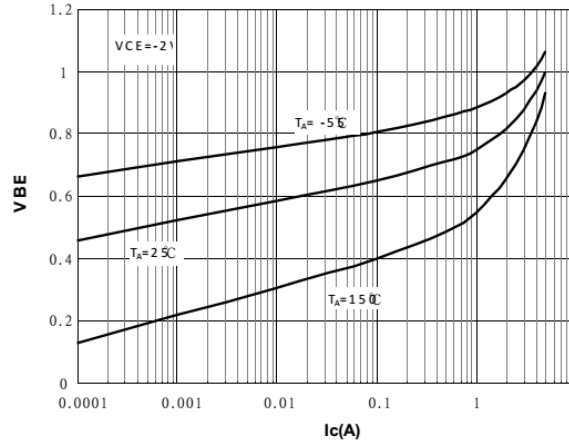


FIG.2 - Base-emitter voltage as a function of collector current

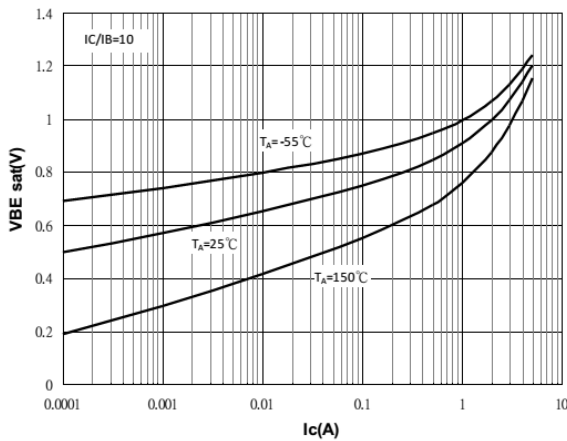


FIG.3 - Base-emitter saturation voltage as a function of collector current

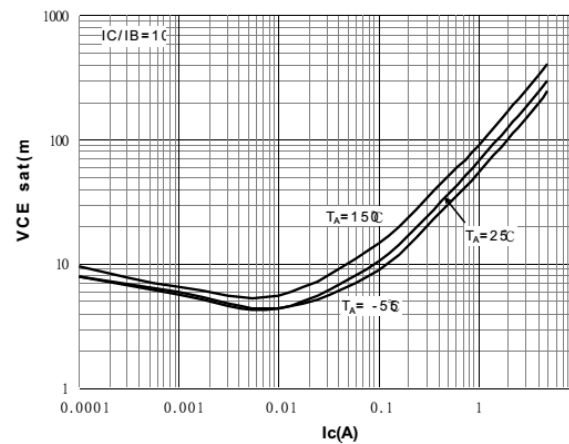
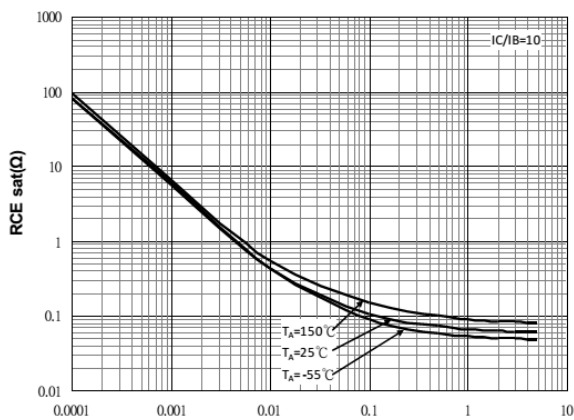
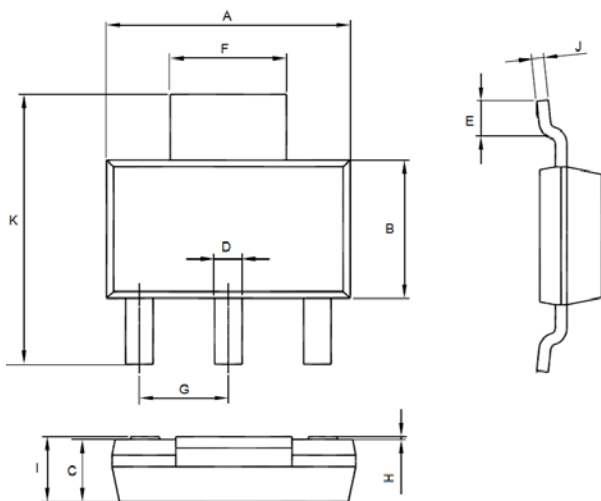


FIG.4 - Collector-emitter saturation voltage as a function of collector current





Package Outline Dimensions (Unit: mm)



SOT-223		

Mounting Pad Layout (Unit: mm)

SOT-223

