



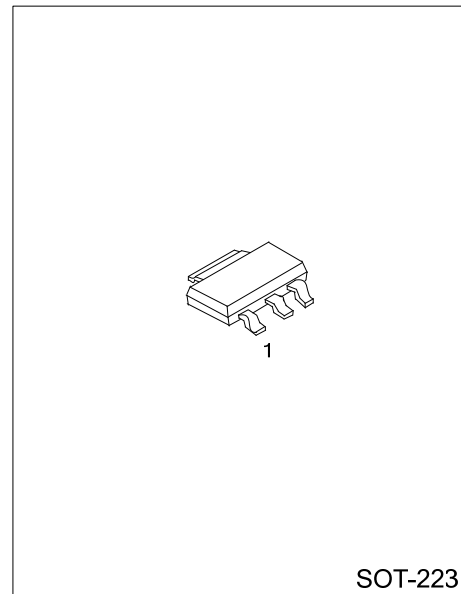
UP1855A

PNP SILICON TRANSISTOR

HIGH CURRENT TRANSISTOR

■ FEATURES

- * High current switching
- * Low $V_{CE(SAT)}$
- * High h_{FE}



■ ORDERING INFORMATION

Ordering Number		Package	Pin Assignment			Packing
Lead Free	Halogen Free		1	2	3	
UP1855AL-x-AA3-R	UP1855AG-x-AA3-R	SOT-223	B	C	E	Tape Reel

<p>UP1855AL-x-AA3-R</p> <p>(1)Packing Type (2)Package Type (3)Rank (4)Lead Plating</p>	<p>(1) R: Tape Reel (2) AA3:SOT-223 (3) x: refer to Classification of h_{FE3} (4) G: Halogen Free, L: Lead Free</p>
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■ ABSOLUTE MAXIMUM RATINGS (Ta = 25°C)

PARAMETER	SYMBOL	RATINGS	UNIT
Collector -Base Voltage	V _{CB0}	-180	V
Collector -Emitter Voltage	V _{CE0}	-170	V
Emitter -Base Voltage	V _{EBO}	-6	V
Collector Current (Pulse)	I _{CM}	-10	A
Collector Current (DC)	I _C	-4	A
Power Dissipation	P _D	1	W
Junction Temperature	T _J	+150	°C
Storage Temperature	T _{STG}	-40 ~ +150	°C

Note: Absolute maximum ratings are those values beyond which the device could be permanently damaged. Absolute maximum ratings are stress ratings only and functional device operation is not implied.

■ ELECTRICAL CHARACTERISTICS (Ta= 25°C, unless otherwise specified)

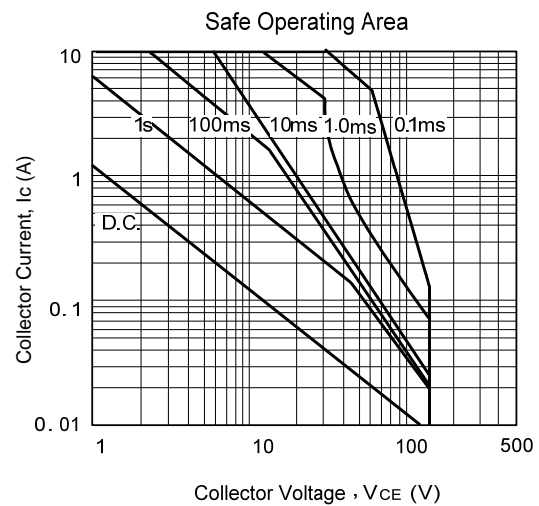
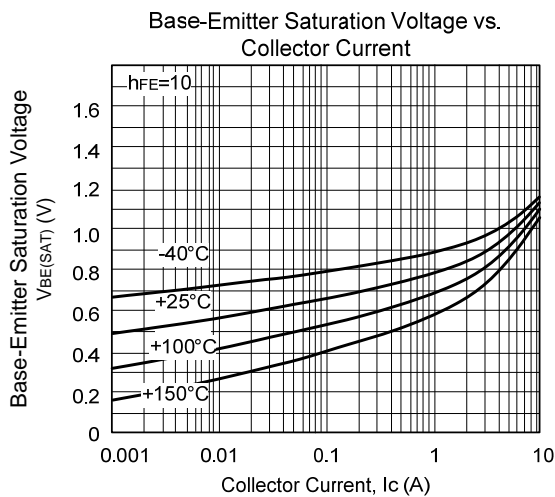
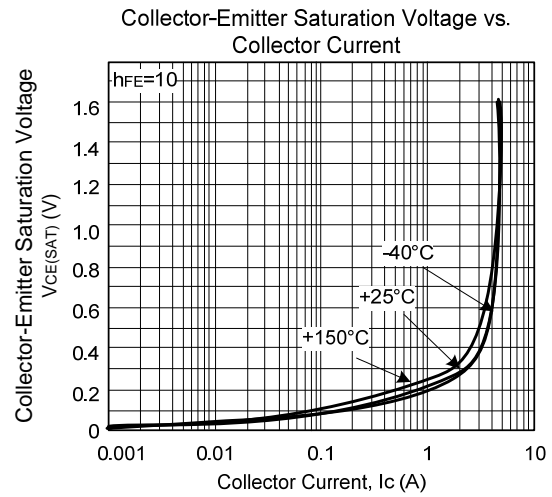
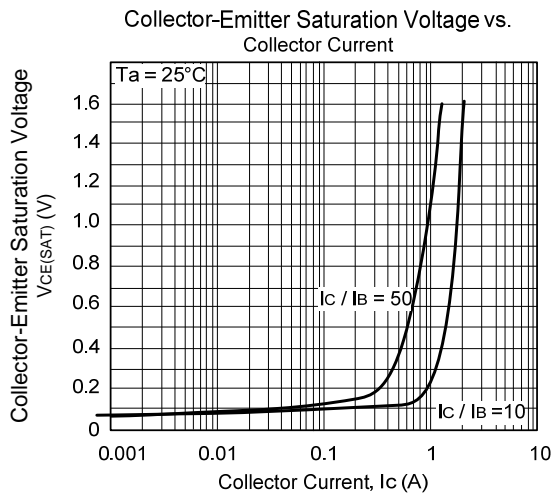
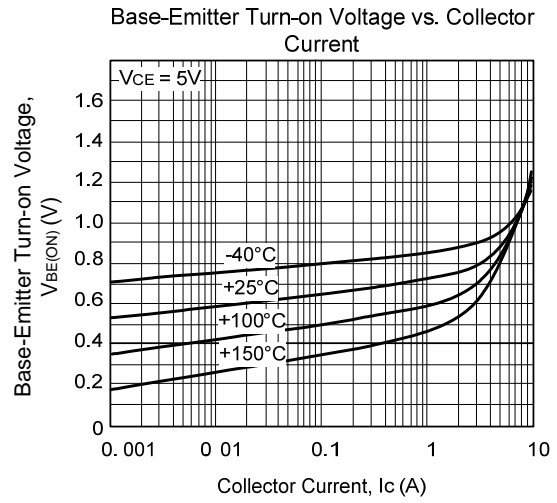
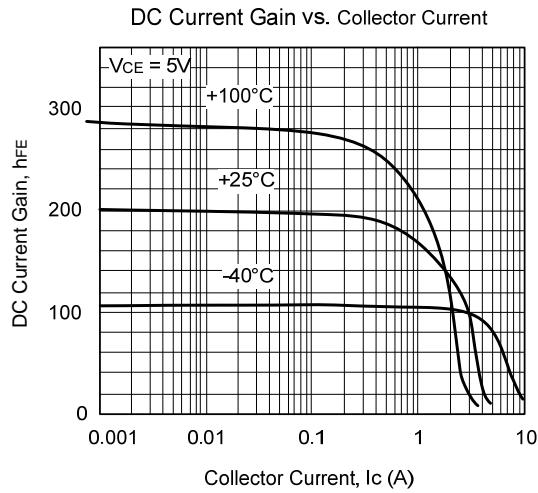
PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Collector-Base Breakdown Voltage	BV _{CB0}	I _C = -100μA	-180	-210		V
Collector-Emitter Breakdown Voltage	BV _{CE0}	I _C = -10mA	-170			V
Emitter-Base Breakdown Voltage	BV _{EBO}	I _E = -100μA	-6	-8		V
Collector Cut-off Current	I _{CB0}	V _{CB} =-150V			-50	nA
Emitter Cut-off Current	I _{EBO}	V _{CB} =-150V, Ta=100°C			-1	μA
		V _{EB} =-6V			-10	nA
Collector-Emitter Saturation Voltage	V _{CE (SAT)}	I _C =-100mA, I _B =-5mA		-30	-60	mV
		I _C =-500mA, I _B =-50mA		-70	-120	mV
		I _C =-1A, I _B =-100mA		-110	-150	mV
		I _C =-3A, I _B =-300mA		-275	-550	mV
Base-Emitter Saturation Voltage	V _{BE (SAT)}	I _C =-3A, I _B =-300mA		-970	-1110	mV
Base-Emitter Turn-On Voltage	V _{BE (ON)}	I _C =-3A, V _{CE} =-5V		-830	-950	mV
DC Current Gain	h _{FE1}	I _C =-10mA, V _{CE} =-5V	100	200		
		I _C =-1A, V _{CE} =-5V	100		300	
		I _C =-3A, V _{CE} =-5V	28	140		
		I _C =-10A, V _{CE} =-5V		10		
Transition Frequency	f _T	I _C =-100mA, V _{CE} =-10V, f=50MHz		110		MHz
Output Capacitance	C _{ob}	V _{CB} =-20V, f=1MHz		40		pF
Switching Times	t _{ON}	I _C =-1A, V _{CC} =-50V		68		ns
	t _{OFF}	I _{B1} =-100mA, I _{B2} =100mA		1030		ns

Note: Pulse test: t_p ≤ 300μs, Duty cycle ≤2%

■ CLASSIFICATION OF h_{FE3}

RANK	A	B
RANGE	28~75	75(MIN.)

TYPICAL CHARACTERISTICS



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