



UNISONIC TECHNOLOGIES CO., LTD

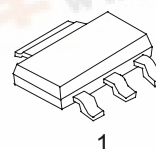
UP1856

PNP SILICON TRANSISTOR

HIGH CURRENT TRANSISTOR

FEATURES

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



SOT-223

*Pb-free plating product number: UP1856L

ORDERING INFORMATION

Order Number		Package	Pin Assignment			Packing
Normal	Lead Free Plating		1	2	3	
UP1856-AA3-R	UP1856L-AA3-R	SOT-223	B	C	E	Tape Reel

UP1856L-AA3-R	(1)Packing Type	(1) R: Tape Reel
	(2)Package Type	(2) AA3: SOT-223
	(3)Lead Plating	(3) L: Lead Free Plating, Blank: Pb/Sn

■ ABSOLUTE MAXIMUM RATING

PARAMETER	SYMBOL	RATINGS	UNIT
Collector-Base Voltage	V_{CBO}	-220	V
Collector-Emitter Voltage	V_{CEO}	-200	V
Emitter-Base Voltage	V_{EBO}	-6	V
Peak Pulse Current	$I_{C(PEAK)}$	-5	A
Continuous Collector Current	I_C	-2	A
Power Dissipation at $T_a=25^{\circ}C$	P_D	1	W
Junction Temperature	T_J	+150	
Storage Temperature	T_{STG}	-40 ~ +150	

Note Absolute maximum ratings are those values beyond which the device could be permanently damaged.

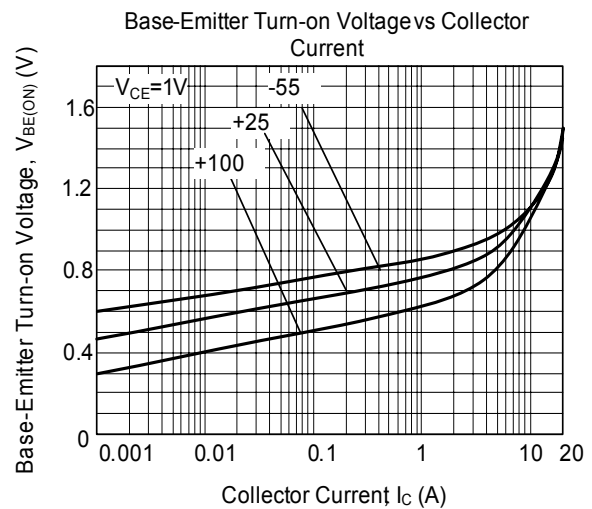
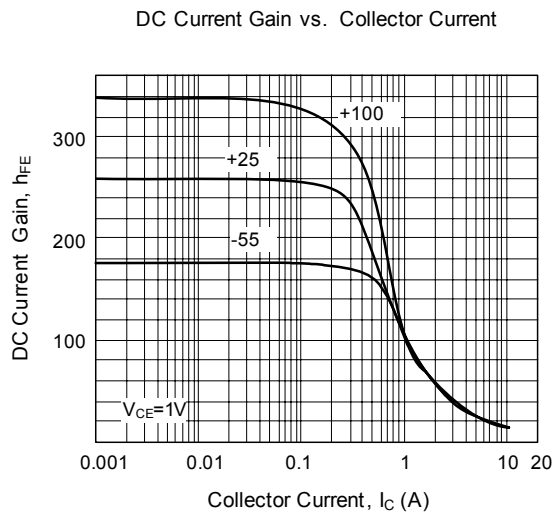
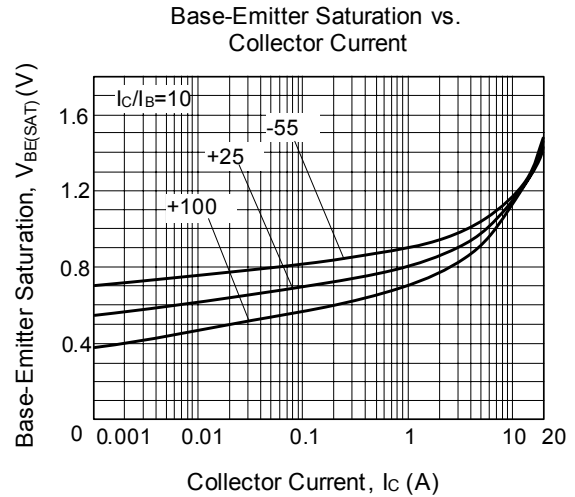
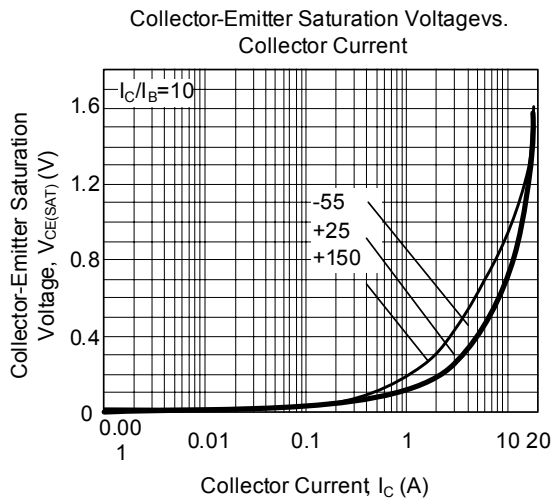
Absolute maximum ratings are stress ratings only and functional device operation is not implied.

■ ELECTRICAL CHARACTERISTICS ($T_a = 25$ unless otherwise specified)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Collector-Emitter Breakdown Voltage	BV_{CEO}	$I_C = -10mA, I_B = 0$ (Note)	-200	-240		V
Collector-Base Breakdown Voltage	BV_{CBO}	$I_C = -0.1mA, I_E = 0$	-220	-300		V
Emitter-Base Breakdown Voltage	BV_{EBO}	$I_E = -0.1mA, I_C = 0$	-6	-8		V
Collector-Emitter Saturation Voltage(Note)	$V_{CE(SAT)}$	$I_C = -100mA, I_B = -10mA$		-30	-50	mV
		$I_C = -1A, I_B = -100mA$		-120	-165	mV
		$I_C = -2A, I_B = -400mA$		-168	-275	mV
Base-Emitter Saturation Voltage	$V_{BE(SAT)}$	$I_C = -2A, I_B = -400mA$		-970	-1110	mV
Base-Emitter Turn-On Voltage	$V_{BE(ON)}$	$I_C = -2A, V_{CE} = -5V$ (Note)		-810	-950	mV
Collector Cut-Off Current	I_{CBO}	$V_{CB} = -200V, I_E = 0$			-50	nA
Emitter Cut-Off Current	I_{EBO}	$V_{EB} = -6V, I_C = 0$			-10	nA
DC Current Gain (Note)	h_{FE1}	$I_C = -10mA, V_{CE} = -5V$	100	200	300	
	h_{FE2}	$I_C = -1A, V_{CE} = -5V$	100	200		
	h_{FE3}	$I_C = -2A, V_{CE} = -5V$	50	150		
	h_{FE4}	$I_C = -5A, V_{CE} = -5V$		10		
Transition Frequency	f_T	$I_C = -100mA, V_{CE} = -10V$ $f = 50MHz$		110		MHz
Output Capacitance	C_{ob}	$V_{CB} = -20V, f = 1MHz$		32		pF
Turn-on Time	t_{ON}	$I_C = -1A, I_{B1} = -100mA$		67		ns
Turn-off Time	t_{OFF}	$I_{B2} = 100mA, V_{CC} = -50V$		1140		ns

Note: Pulsed test: duty cycle $\leq 2\%$, $t_P = 300\mu sec$.

TYPICAL CHARACTERISTICS



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