

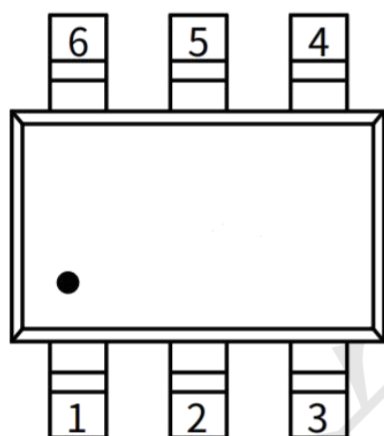
Product Summary

- $BVCBO \geq 80V(I_C=100\mu A)$
- $BVCEO \geq 60V(I_C=10mA)$
- $I_C = 1A$

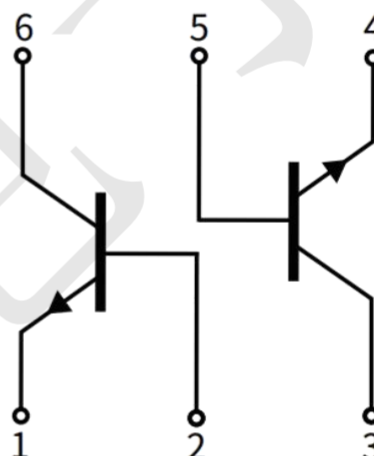
Features

- Consumer electronics
- Voltage switching
- High Speed Switching

Circuit diagram and pin information



SOT23-6



Absolute Maximum Ratings

($T_A=25^\circ C$ unless otherwise specified)

PARAMETER	SYMBOL	LIMIT	UNIT
Collector-Base Voltage	V_{CBO}	80	V
Collector-Emitter Voltage	V_{CEO}	60	V
Emitter-Base Voltage	V_{EBO}	5	V
Collector Current (DC)	I_C	1	A
Collector Peak Current (Pulse) Single pulse, $P_w \leq 380\mu s$, Duty $\leq 2\%$	I_{CM}	2	A
Power Total Dissipation @ $T_A=25^\circ C$	P_D	0.5	W
Maximum Operating Junction Temperature	T_J	+150	$^\circ C$
Storage Temperature Range	T_{STG}	-55 to +150	$^\circ C$

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

Electrical Characteristics

(TA=25°C unless otherwise specified)

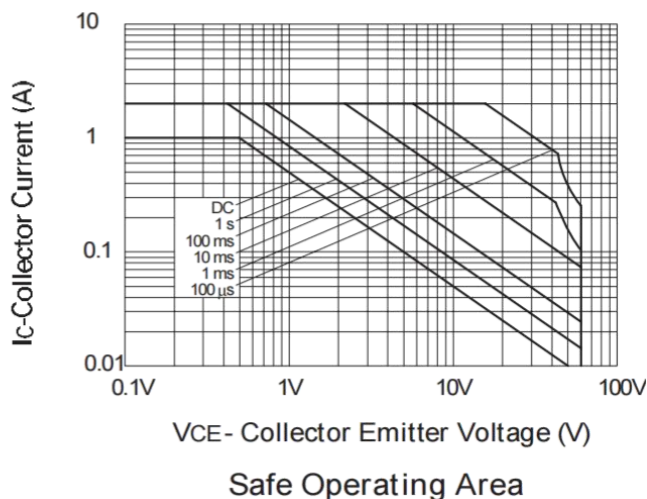
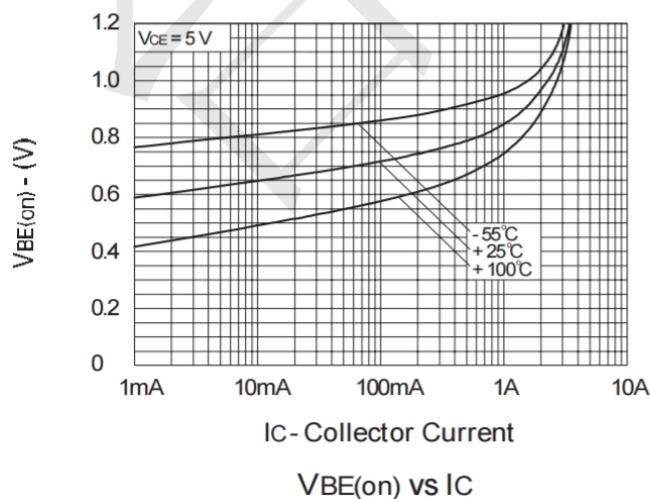
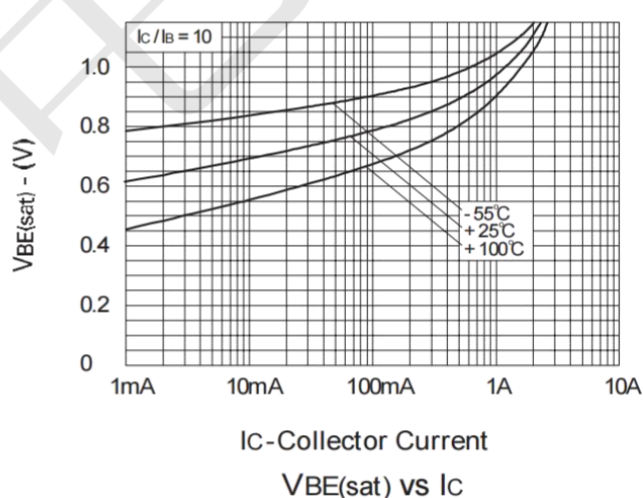
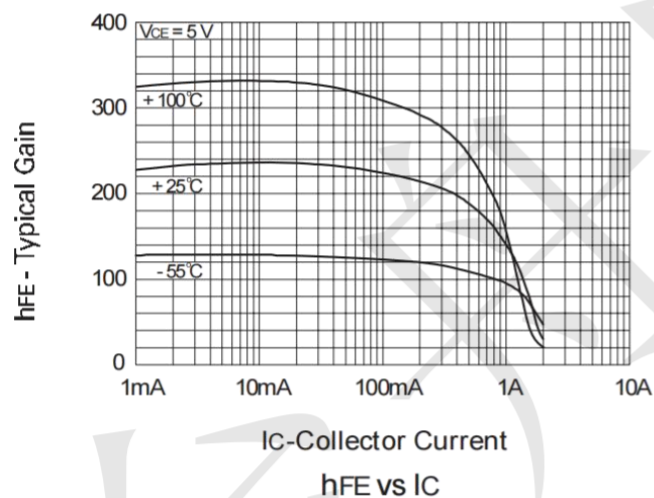
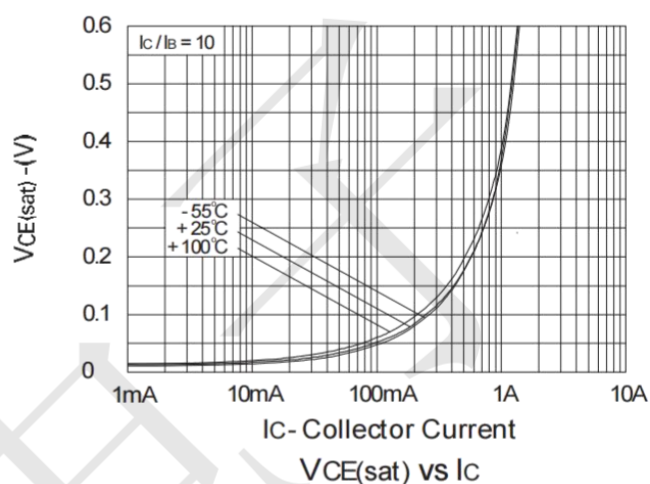
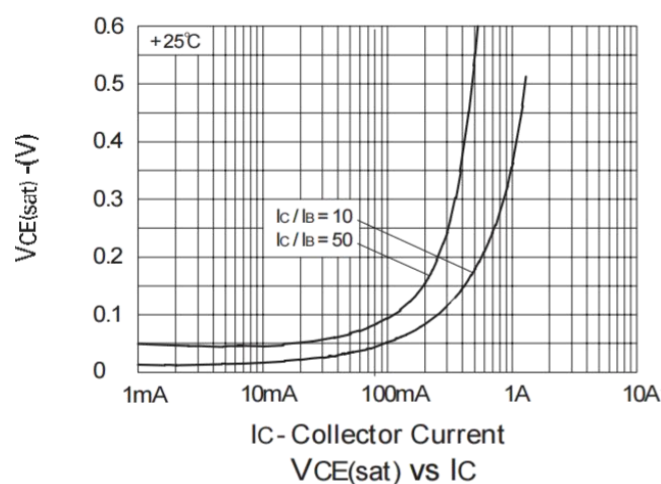
PARAMETER	CONDITIONS	SYMBOL	MIN	TYP	MAX	UNIT
Static (Note 1)						
Collector-Base Breakdown Voltage	$I_C = 100\mu A, I_E = 0$	BV_{CBO}	80	--	--	V
Collector-Emitter Breakdown Voltage	$I_C = 10mA, I_B = 0$	BV_{CEO}	60	--	--	V
Emitter-Base Breakdown Voltage	$I_E = 100\mu A, I_C = 0$	BV_{EBO}	5	--	--	V
Collector Cutoff Current	$V_{CB} = 60V, I_E = 0$	I_{CBO}	--	--	0.1	μA
Emitter Cutoff Current	$V_{EB} = 5V, I_C = 0$	I_{EBO}	--	--	0.1	μA
Collector-Emitter Saturation Voltage	$I_C = 0.5A, I_B = 0.05A$	$V_{CE(SAT)1}$	--	--	0.25	V
	$I_C = 1A, I_B = 0.1A$	$V_{CE(SAT)2}$	--	--	0.5	V
DC Current Transfer Ratio	$V_{CE} = 5V, I_C = 1mA$	h_{FE1}	100	--	--	
	$V_{CE} = 5V, I_C = 0.5A$	h_{FE2}	80	300	--	
	$V_{CE} = 5V, I_C = 1A$	h_{FE3}	80	--	--	
Dynamic (Note 2)						
Transition Frequency	$V_{CE} = 10V, I_C = 100mA, f = 50MHz$	f_T	150	--	--	MHz
Collector Output Capacitance	$V_{CB} = 10V, I_E = 0A, f = 10MHz$	C_{ob}	--	10	--	pF

Note:

1. Pulse test: $\leq 380\mu s$, duty cycle $\leq 2\%$

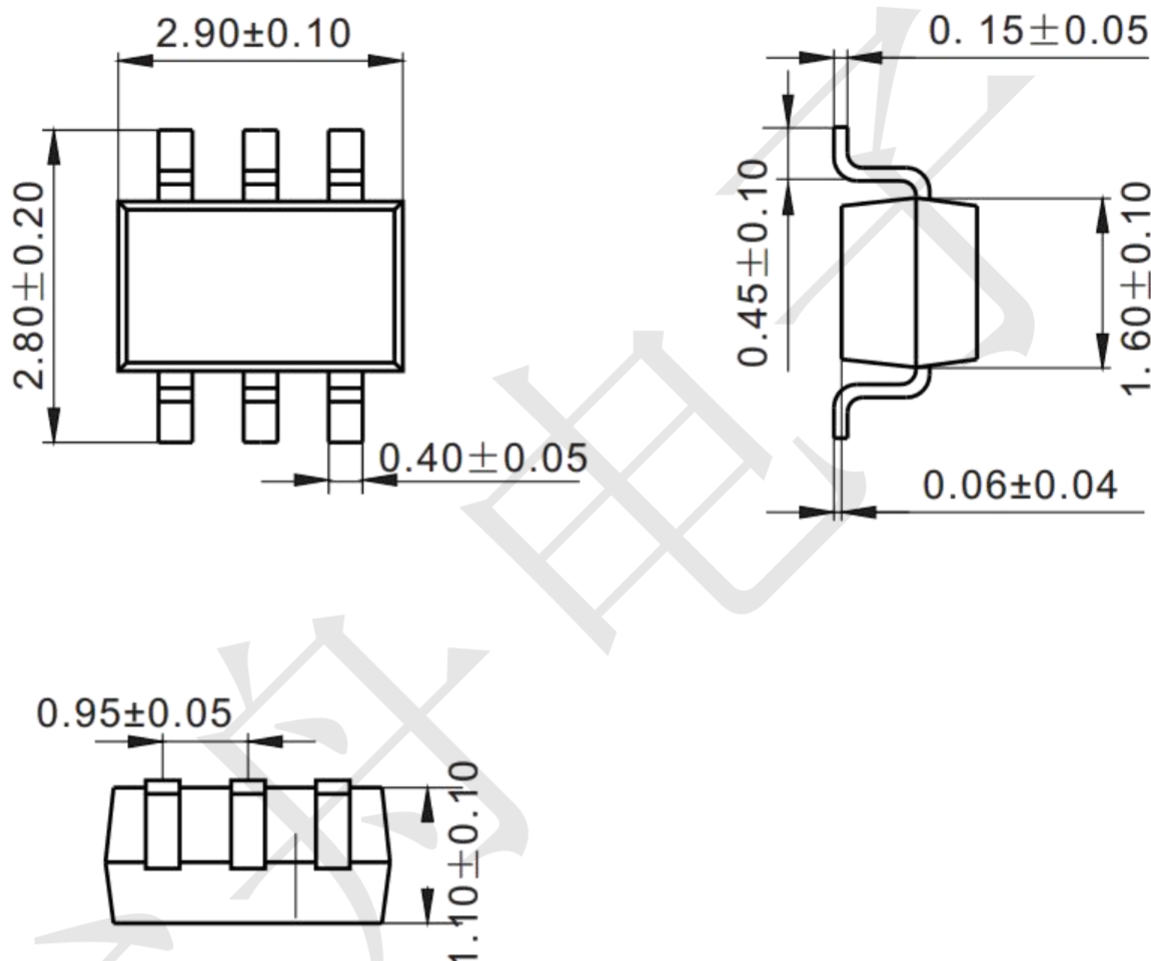
2. For DESIGN AID ONLY, not subject to production testing

Typical Performance Characteristics($T_A=25^\circ\text{C}$)



Package information (Unit: mm)

SOT23-6



Mounting Pad Layout (unit: mm)

