

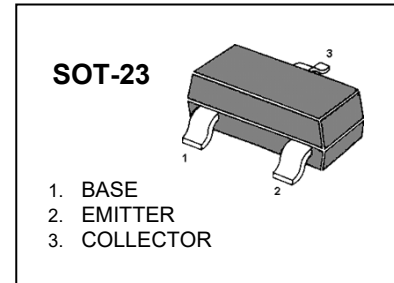
SOT-23 Plastic-Encapsulate Transistors

2SC2655 TRANSISTOR (NPN)

FEATURES

- Low Saturation Voltage: $V_{CE(sat)}=0.5V(\text{Max})(I_C=1A)$
- High Speed Switching Time: $t_{stg}=1\mu s(\text{Typ.})$
- Complementary to 2SA1020

MARKING : 2655



ABSOLUTE MAXIMUM RATINGS ($T_A=25^\circ C$,unless otherwise specified)

PARAMETER	SYMBOL	RATING	UNIT
Collector-Base Voltage	V_{CBO}	50	V
Collector-Emitter Voltage	V_{CEO}	50	V
Emitter-Base Voltage	V_{EBO}	5	V
Collector Current	I_C	2	A
Collector Current (Pulse) (Note 1)	I_{CP}	3	A
Base Current	I_B	0.5	A
Collector Power Dissipation	P_C	350	mW
Junction Temperature	T_J	150	$^\circ C$
Storage Temperature	T_{STG}	-55 ~ +150	$^\circ C$

Note: 1. $P_W \leq 16ms$, Duty Cycle $\leq 50\%$.

2. 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.

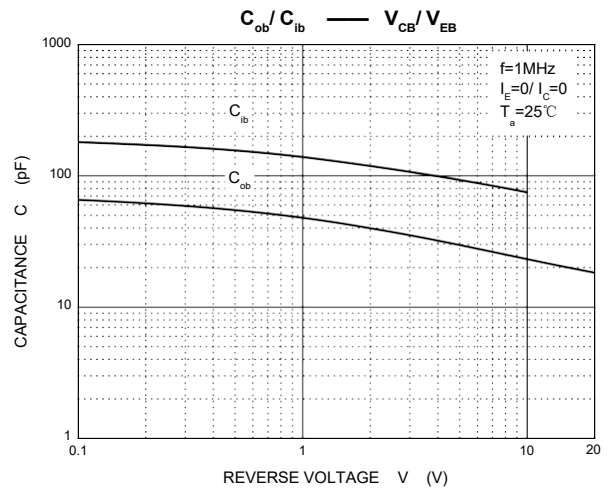
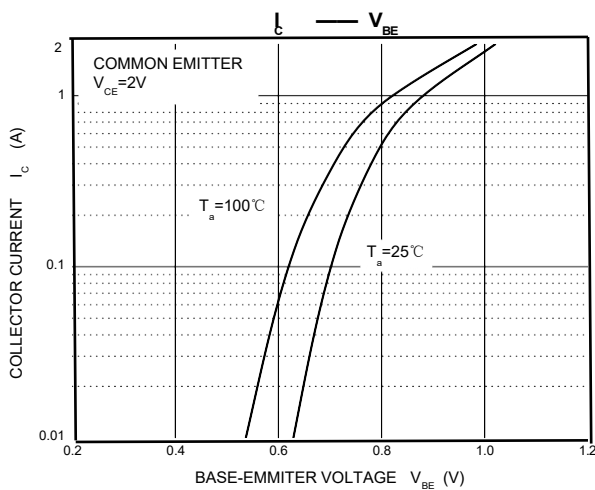
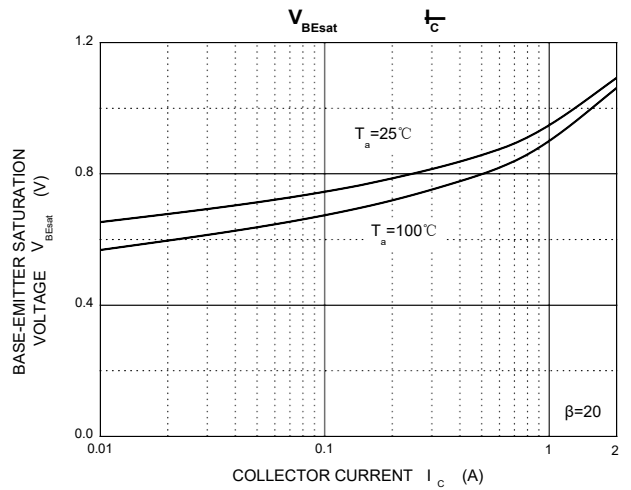
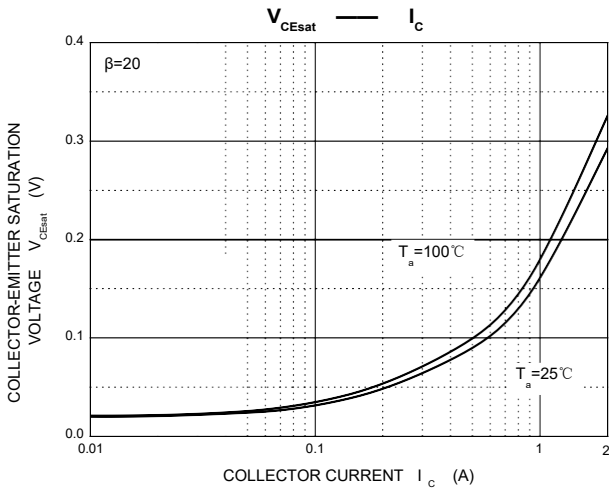
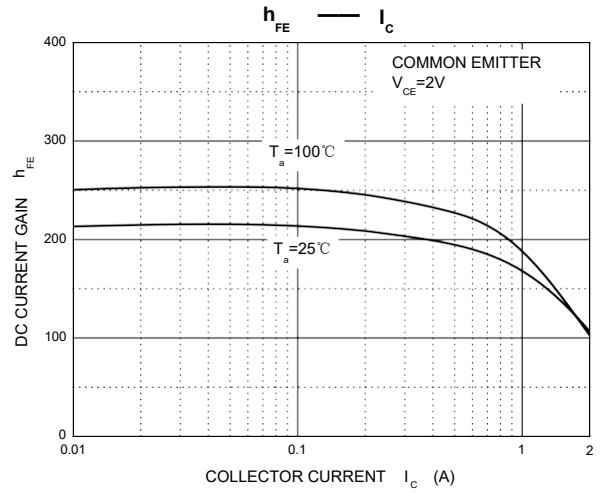
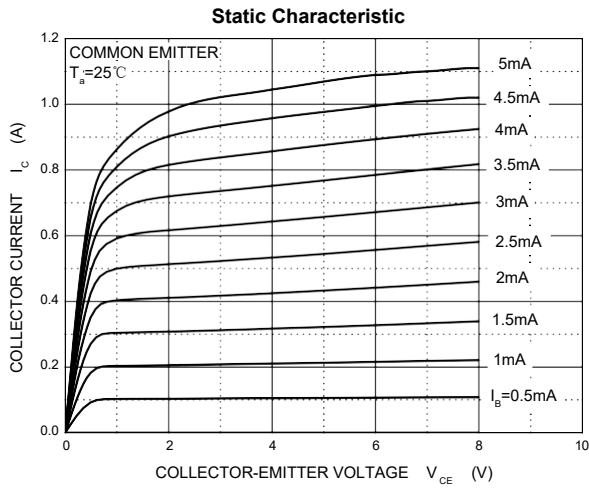
ELECTRICAL CHARACTERISTICS ($T_A=25^\circ C$, unless otherwise specified)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Collector Emitter Breakdown Voltage	BV_{CEO}	$I_C= 10mA, I_B= 0$	50			V
Collector Cut-off Current	I_{CBO}	$V_{CB}=50V, I_E= 0$			1.0	μA
Emitter Cut-off Current	I_{EBO}	$V_{EB}= 5V, I_C=0$			1.0	μA
DC Current Gain	$h_{FE(1)}$	$V_{CE}=2V, I_C=0.5A$	70		240	
	$h_{FE(2)}$	$V_{CE}=2V, I_C=1.5A$	40			
Collector-Emitter Saturation Voltage	$V_{CE(SAT)}$	$I_C=1A, I_B=0.05A$			0.5	V
Base- Emitter Saturation Voltage	$V_{BE(SAT)}$	$I_C=1A, I_B=0.05A$			1.2	V
Transition Frequency	f_T	$V_{CE}=2V, I_C=0.5A$		100		MHz
Collector Output Capacitance	C_{OB}	$V_{CB}= 10V, I_E= 0, f=1MHz$		30		pF
Switching Time(Turn-on Time)	t_{ON}	<p>$I_{B1} = -I_{B2} = 0.05A$ DUTY CYCLE $\leq 1\%$</p>		0.1		μs

CLASSIFICATION OF $h_{FE(1)}$

RANK	O	Y
RANGE	70-140	120-240

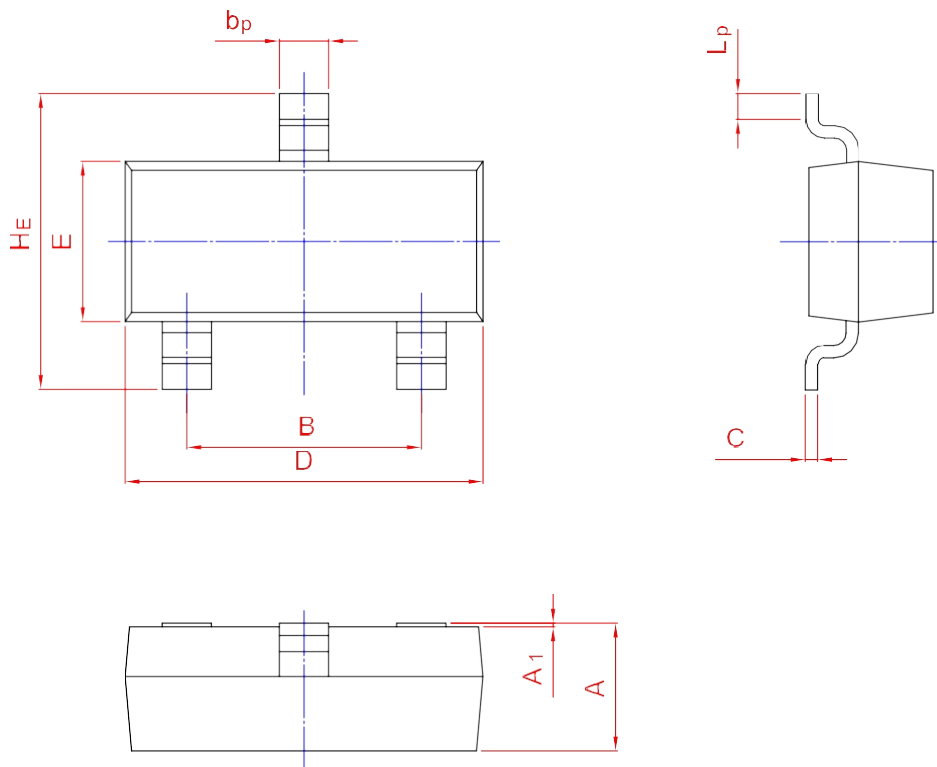
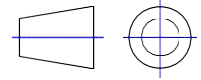
Typical Characteristics



PACKAGE OUTLINE

Plastic surface mounted package; 3 leads

SOT-23



UNIT	A	B	bp	C	D	E	HE	A1	Lp
mm	1.40	2.04	0.50	0.19	3.10	1.65	3.00	0.100	0.50
	0.95	1.78	0.35	0.08	2.70	1.20	2.20	0.013	0.20