



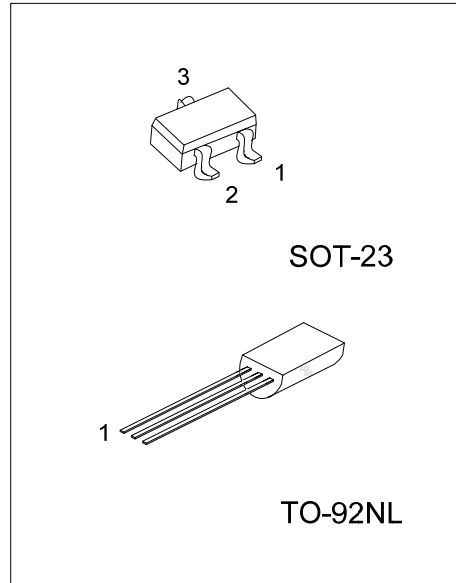
**2SC2655**

**NPN SILICON TRANSISTOR**

POWER AMPLIFIER  
 APPLICATIONS POWER  
 SWITCHING APPLICATIONS

■ FEATURES

- \* Low saturation voltage:  $V_{CE(SAT)} = 0.5V$  (Max.)
- \* High speed switching time:  $t_{stg} = 1.0\mu s$  (Typ.)



Lead-free: 2SC2655L  
 Halogen-free: 2SC2655G

■ ORDERING INFORMATION

Ordering Number			Package	Pin Assignment			Packing
Normal	Lead Free	Halogen Free		1	2	3	
2SC2655-x-AE3-R	2SC2655L-x-AE3-R	2SC2655Gx-AE3-R	SOT-23	E	B	C	Tape Reel
2SC2655-x-T9N-B	2SC2655L-x-T9N-B	2SC2655Gx-T9N-B	TO-92NL	E	C	B	Tape Box
2SC2655-x-T9N-K	2SC2655L-x-T9N-K	2SC2655Gx-T9N-K	TO-92NL	E	C	B	Bulk

<p>2C2655L-x-AE3-R</p> <p>(1)Packing Type        (2)Package Type        (3)Rank        (4)Lead Plating</p>	<p>(1) B: Tape Box, K: Bulk, R: Tape Reel        (2) AE3: SOT-23, T9N: TO-92NL        (3) refer to Classification of <math>h_{FE(1)}</math>        (4) G:Halogen, L: Lead Free , Blank: Pb/Sn</p>
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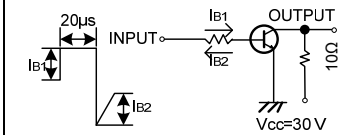
■ ABSOLUTE MAXIMUM RATINGS ( Ta=25°C ,unless otherwise specified )

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)	$I_{cp}(\text{Note 1})$	3	A
Base Current	$I_B$	0.5	A
Collector Power Dissipation	SOT-23	350	mW
	TO-92NL	900	
Junction Temperature	$T_J$	150	°C
Storage Temperature	$T_{STG}$	-55 ~ +150	°C

Note: 1.  $PW \leq 16\text{ms}$ , 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.

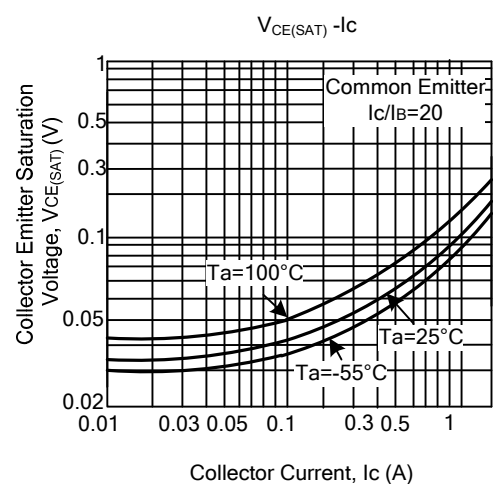
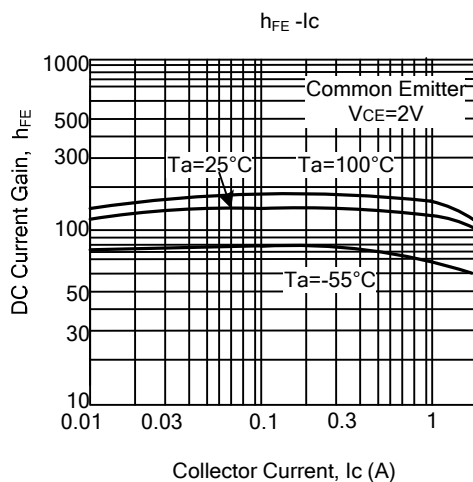
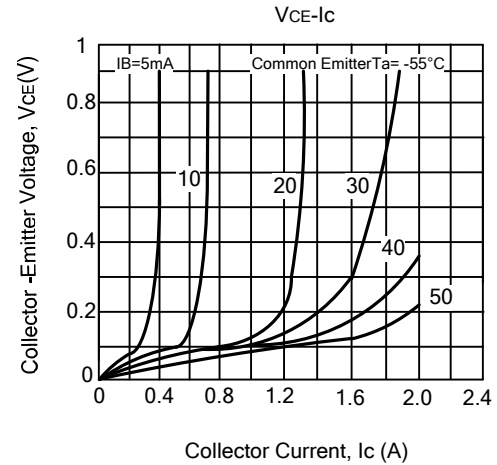
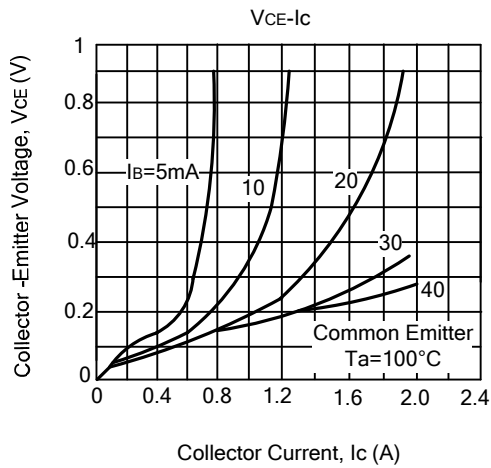
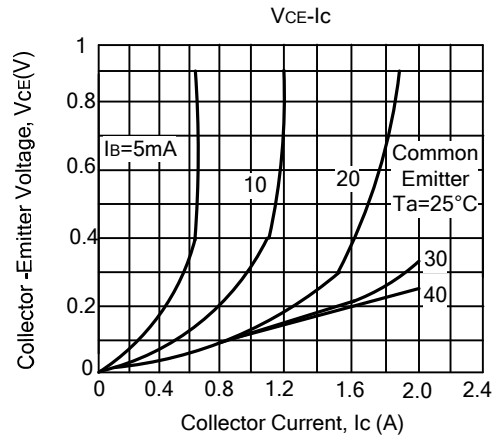
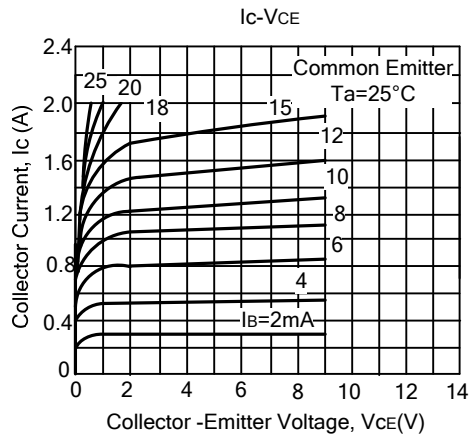
■ ELECTRICAL CHARACTERISTICS(Ta=25°C, unless otherwise specified)

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

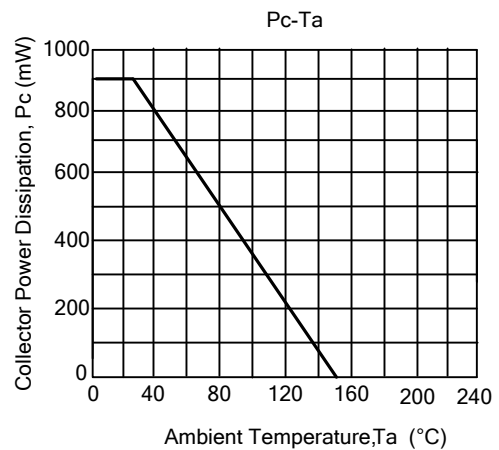
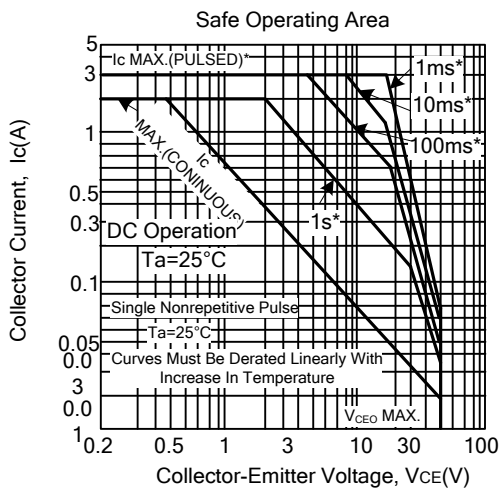
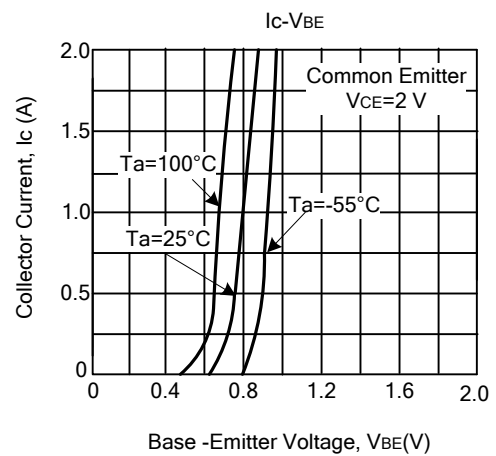
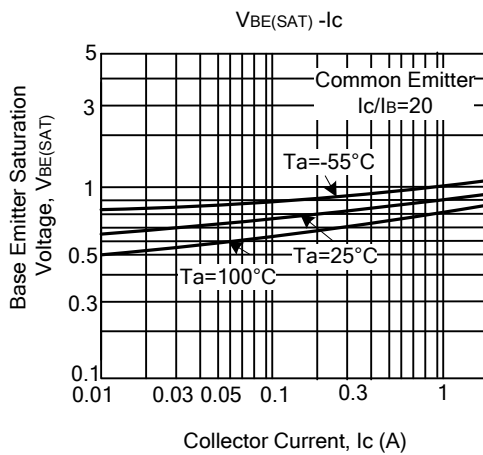
■ CLASSIFICATION OF  $h_{FE(1)}$

RANK	O	Y
RANGE	70-140	120-240

## TYPICAL CHARACTERISTICS



## ■ TYPICAL CHARACTERISTICS(Cont.)



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