



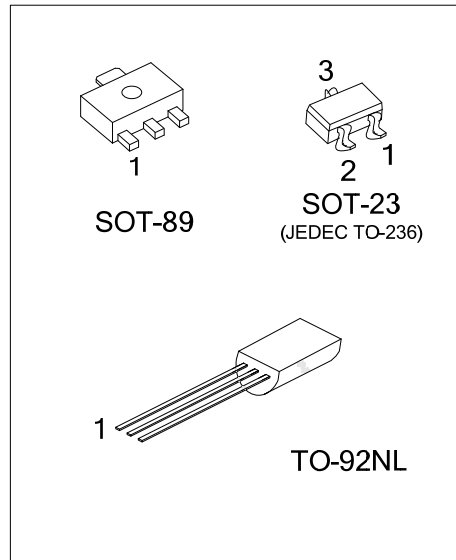
# 2SC2655

## 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.)



■ ORDERING INFORMATION

Ordering Number		Package	Pin Assignment			Packing
Lead Free	Halogen Free		1	2	3	
-	2SC2655Gx-AB3-R	SOT-89	B	C	E	Tape Reel
-	2SC2655Gx-AE3-R	SOT-23	E	B	C	Tape Reel
2SC2655L-x-T9N-B	2SC2655Gx-T9N-B	TO-92NL	E	C	B	Tape Box
2SC2655L-x-T9N-K	2SC2655Gx-T9N-K	TO-92NL	E	C	B	Bulk

Note: Pin Assignment: B: Base C: Collector E: Emitter

<p>2C2655G-x-AB3-R</p> <p>(1)Packing Type          (2)Package Type          (3)Rank          (4)Green Package</p>	<p>(1) B: Tape Box, K: Bulk, R: Tape Reel          (2) AB3: SOT-89, AE3: SOT-23, T9N: TO-92NL          (3) refer to Classification of <math>h_{FE1}</math>          (4) G: Halogen Free and Lead Free, L: Lead Free</p>
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■ MARKING

SOT-23	SOT-89	TO-92NL

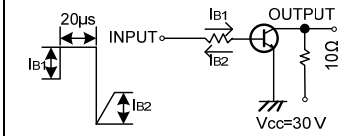
■ ABSOLUTE MAXIMUM RATINGS ( $T_A=25^\circ\text{C}$ , unless otherwise specified)

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	SOT-23	$P_C$	350	mW
	SOT-89		500	
	TO-92NL		900	
Junction Temperature		$T_J$	150	$^\circ\text{C}$
Storage Temperature		$T_{STG}$	-55 ~ +150	$^\circ\text{C}$

Notes: 1.  $P_W \leq 16\text{ms}$ , 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.

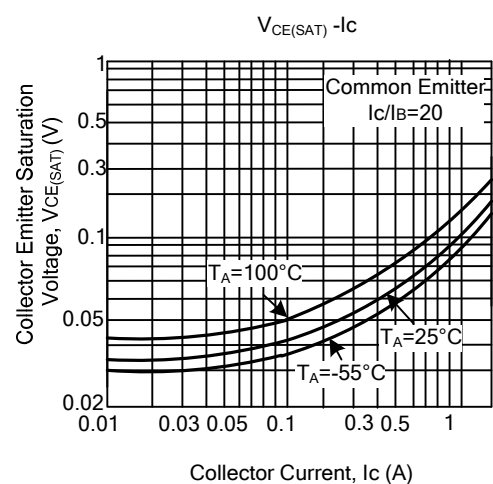
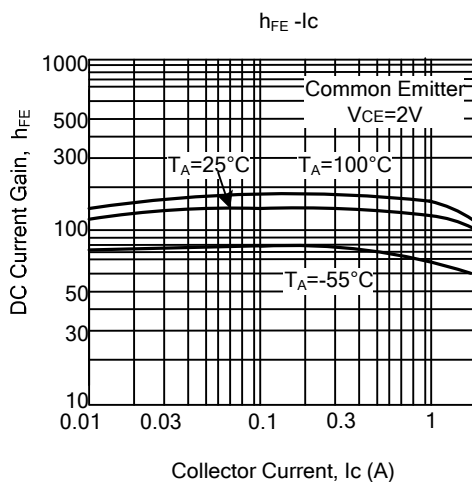
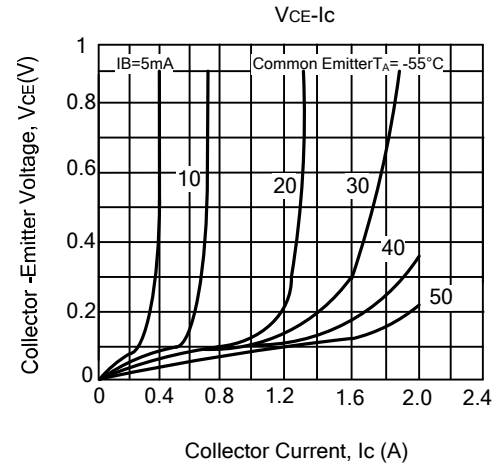
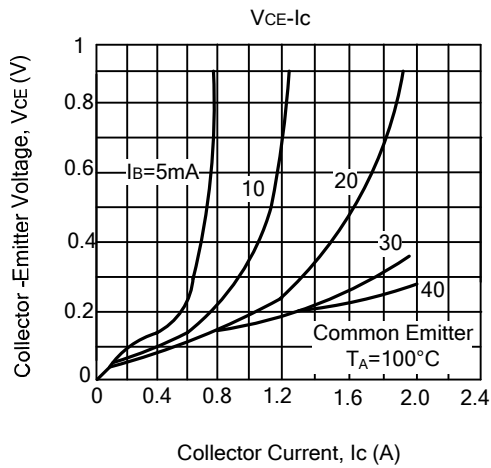
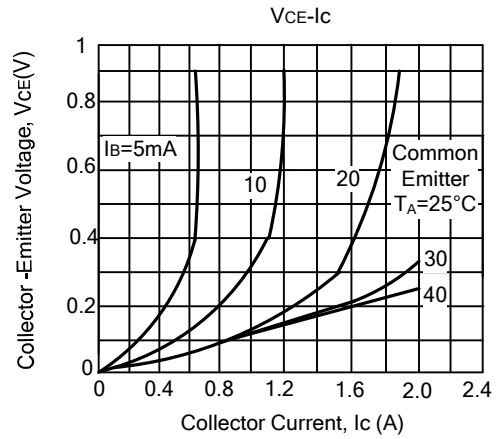
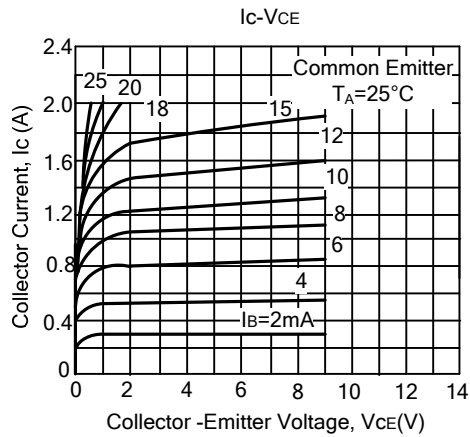
■ ELECTRICAL CHARACTERISTICS ( $T_A=25^\circ\text{C}$ , unless otherwise specified)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Collector to Base Breakdown Voltage	$BV_{CBO}$	$I_C=10\mu\text{A}$ , $I_E=0$	50			V
Collector to Emitter Breakdown Voltage	$BV_{CEO}$	$I_C=10\text{mA}$ , $I_B=0$	50			V
Emitter to Base Breakdown Voltage	$BV_{EBO}$	$I_E=10\mu\text{A}$ , $I_C=0$	5			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	$h_{FE1}$	$V_{CE}=2\text{V}$ , $I_C=0.5\text{A}$	70		240	
	$h_{FE2}$	$V_{CE}=2\text{V}$ , $I_C=1.5\text{A}$	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		$\mu\text{s}$

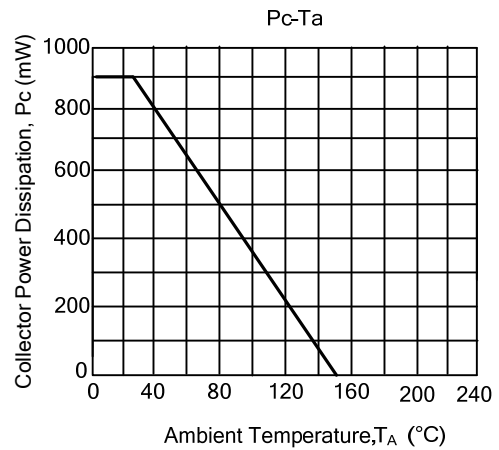
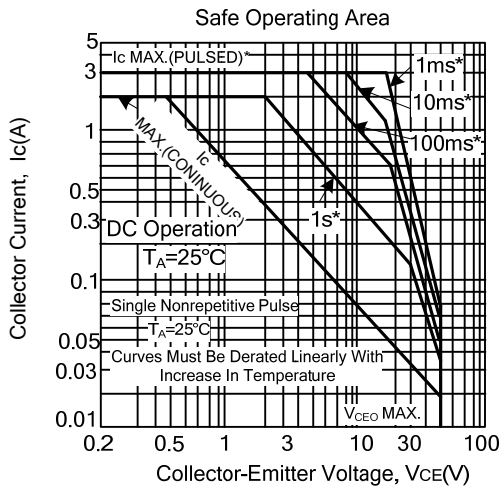
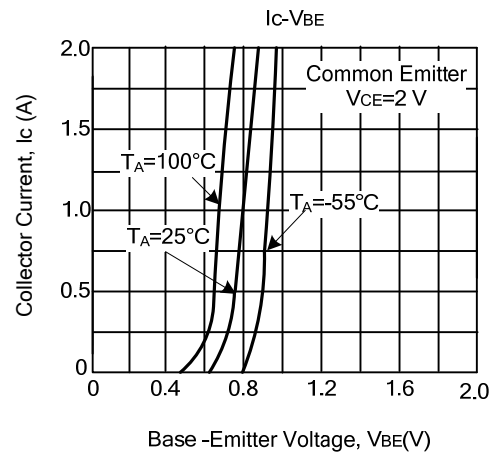
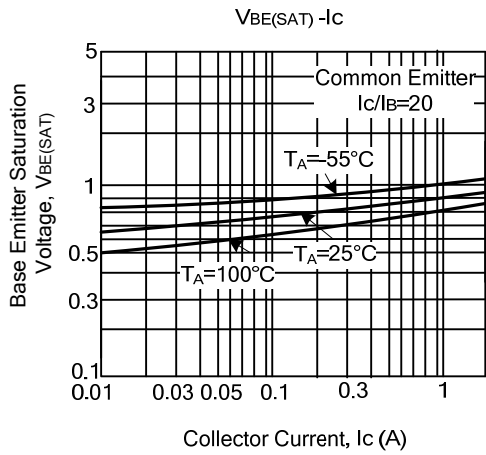
■ CLASSIFICATION OF  $h_{FE1}$

RANK	O	Y
RANGE	70-140	120-240

## TYPICAL CHARACTERISTICS



■ TYPICAL CHARACTERISTICS(Cont.)



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