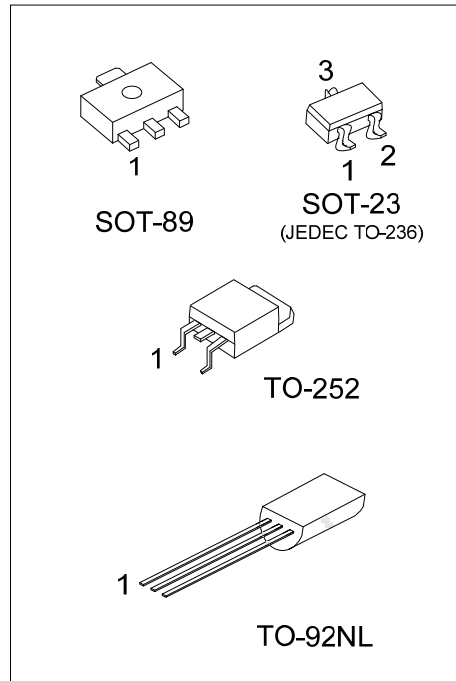




2SC2655

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	
2SC2655L-x-AB3-R	2SC2655G-x-AB3-R	SOT-89	B	C	E	Tape Reel
2SC2655L-x-AE3-R	2SC2655G-x-AE3-R	SOT-23	B	E	C	Tape Reel
2SC2655L-x-TN3-R	2SC2655G-x-TN3-R	TO-252	B	C	E	Tape Reel
2SC2655L-x-T9N-B	2SC2655G-x-T9N-B	TO-92NL	E	C	B	Tape Box
2SC2655L-x-T9N-K	2SC2655G-x-T9N-K	TO-92NL	E	C	B	Bulk

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

<p>2SC2655G-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 TN3: TO-252 (3) refer to Classification of h_{FE1} (4) G: Halogen Free and Lead Free, L: Lead Free</p>
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■ MARKING

<p>SOT-23</p>	<p>SOT-89</p>
<p>TO-252</p>	<p>TO-92NL</p>

■ ABSOLUTE MAXIMUM RATINGS (T_A= 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) (Note 2)		I _{CP}	3	A
Base Current		I _B	0.5	A
Collector Power Dissipation	SOT-23	P _C	350	mW
	SOT-89		500	mW
	TO-252		1000	mW
	TO-92NL		900	mW
Junction Temperature		T _J	+150	°C
Operating Temperature		T _{OPR}	-40 ~ +150	°C
Storage Temperature		T _{STG}	-55 ~ +150	°C

Notes: 1. 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.

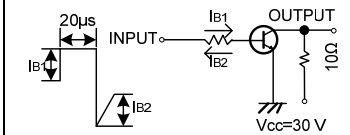
2. P_W ≤ 16ms, Duty Cycle ≤ 50%.

■ THERMAL DATA

PARAMETER		SYMBOL	RATINGS	UNIT
Junction to Ambient	SOT-23	θ _{JA}	417	°C/W
	SOT-89		250	
	TO-252		75	
	TO-92NL		125	
Junction to Case	SOT-23	θ _{JC}	208.3	°C/W
	SOT-89		156.3	
	TO-252		12.5	
	TO-92NL		83.3	

Note: Device mounted on FR-4 substrate P_C board, 2oz copper, with 1inch square copper plate.

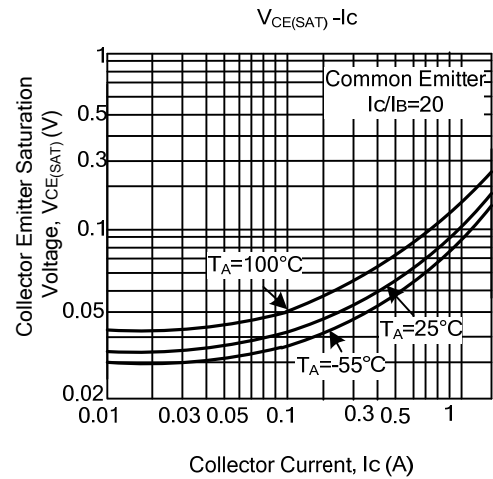
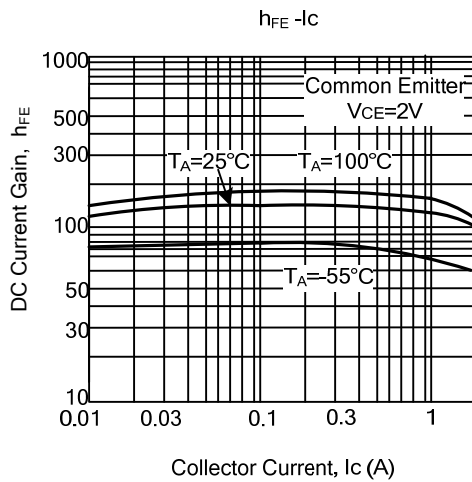
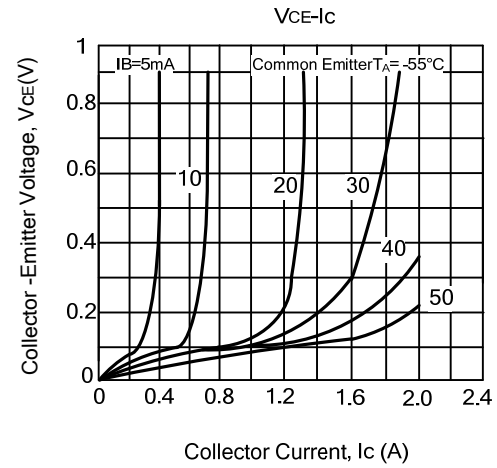
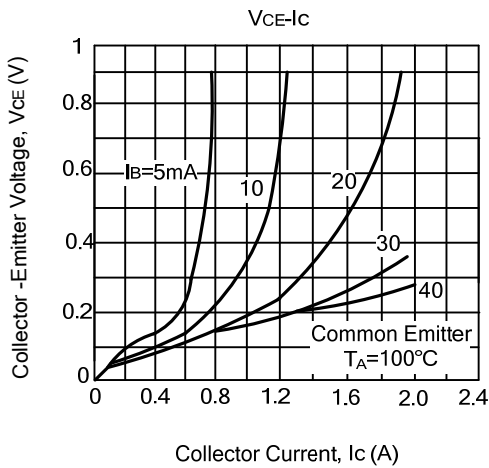
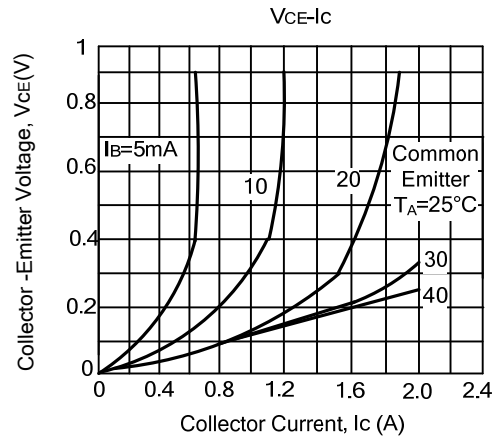
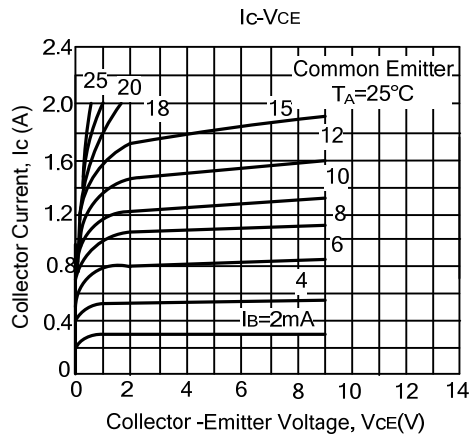
■ ELECTRICAL CHARACTERISTICS (T_A= 25°C, unless otherwise specified)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Collector to Base Breakdown Voltage	BV _{CBO}	I _C = 10μA, I _E = 0	50			V
Collector to Emitter Breakdown Voltage	BV _{CEO}	I _C = 10mA, I _B = 0	50			V
Emitter to Base Breakdown Voltage	BV _{EBO}	I _E = 10μA, I _C = 0	5			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 _{FE1}	V _{CE} =2V, I _C =0.5A	70		240	
	h _{FE2}	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 ≤ 1%</p>		0.1		μS

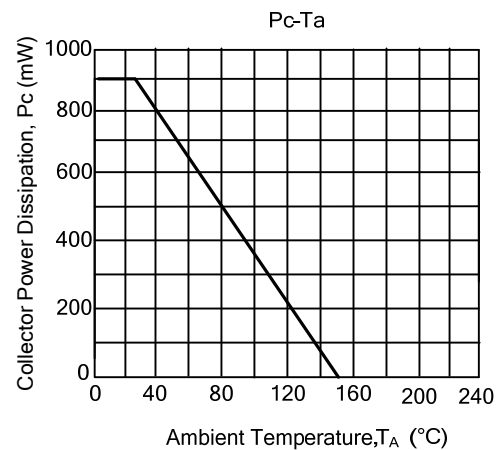
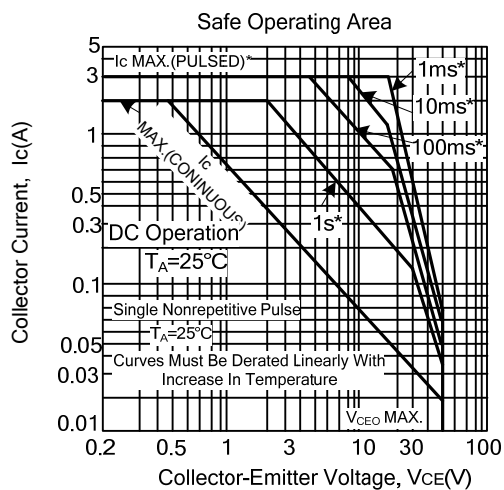
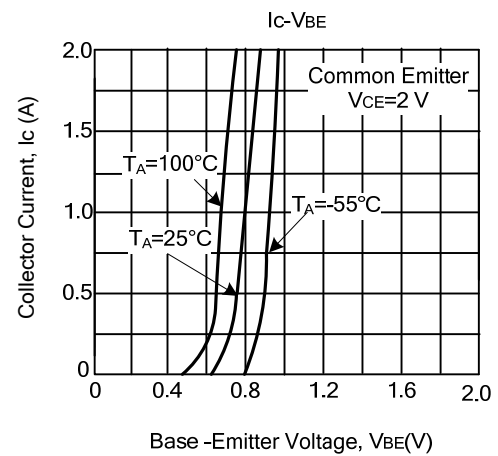
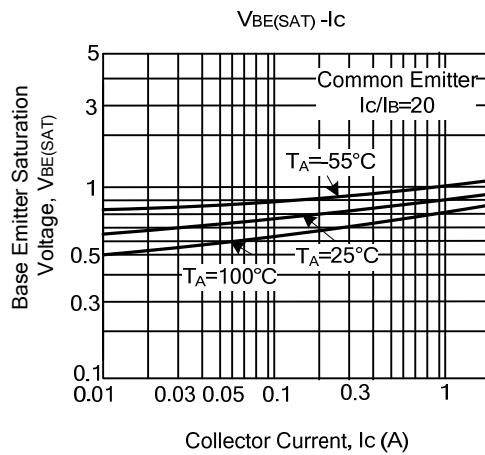
■ CLASSIFICATION OF h_{FE1}

RANK	O	Y
RANGE	70-140	120-240

TYPICAL CHARACTERISTICS



■ TYPICAL CHARACTERISTICS (Cont.)



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