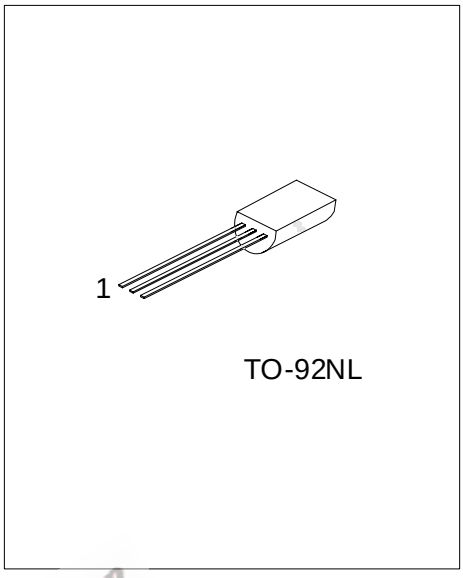
2SC2655

NPN SILICON TRANSISTOR

POWER AMPLIFIER APPLICATIONS
POWER SWITCHING APPLICATIONS



*Pb-free plating product number: 2SC2655L

■ FEATURES

*Low saturation voltage
$V_{CE(SAT)}$= 0.5V (Max.)
*High speed switching time
tstg=1.0μs (Typ.)

■ ORDERING INFORMATION

Order Number		Package	Pin Assignment			Packing
Normal	Lead Free Plating		1	2	3	
2SC2655-x-T9N-B	2SC2655L-x-T9N-B	TO-92NL	E	C	B	Tape Box
2SC2655-x-T9N-K	2SC2655L-x-T9N-K	TO-92NL	E	C	B	Bulk
2SC2655-x-T9N-R	2SC2655L-x-T9N-R	TO-92NL	E	C	B	Tape Reel

2C2655L-x-T9N-K
(1)Packing Type
(2)Package Type
(3)Rank
(4)Lead Plating

(1) B: Tape Box, K: Bulk, R: Tape Reel
(2) T9N: TO-92NL
(3) refer to Classification of $h_{FE(1)}$
(4) L: Lead Free Plating, Blank: Pb/Sn

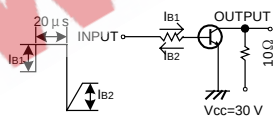
■ ABSOLUTE MAXIMUM RATINGS (Ta=25°C ,unless otherwise specified)

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	Ic	2	A
Collector Current(Pulse)	Icp*	3	A
Base Current	I_B	0.5	A
Collector Power Dissipation	Pc	900	mW
Junction Temperature	T_J	150	°C
Storage Temperature	T_{STG}	-55 ~ +150	°C

Note: * PW≦16ms, Duty Cycle≦50%.

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.

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

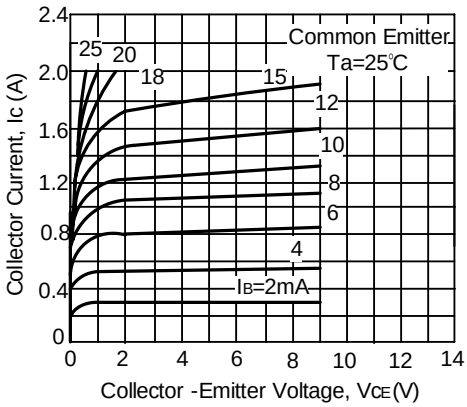
PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Collector Emitter Breakdown Voltage	BV_{CEO}	I_C= 10mA, I_B= 0	50			V
Collector Cut-off Current	I_{CBO}	V_{CB}=50V, I_E= 0			1.0	μA
Emitter Cut-off Current	I_{EBO}	V_{EB}= 5V, I_C=0			1.0	μA
DC Current Gain	$h_{FE(1)}$	V_{CE}=2V, Ic=0.5A	70		240	
	$h_{FE(2)}$	V_{CE}=2V, Ic=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	Cob	V_{CB}= 10V, I_E= 0, f=1MHz		30		pF
Switching Time(Turn-on Time)	t_{ON}	 I_{B1}= -I_{B2}=0.05A DUTY CYCLE≦1%		0.1		μS

■ CLASSIFICATION OF $h_{FE(1)}$

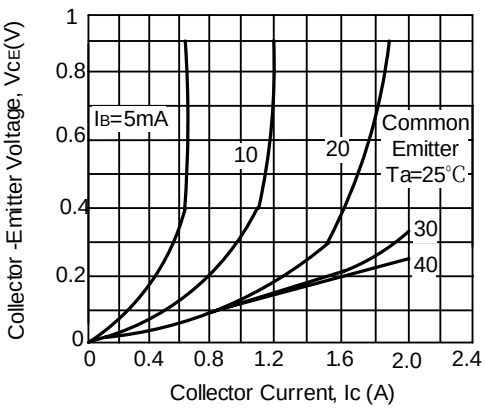
RANK	O	Y
RANGE	70-140	120-240

■ TYPICAL CHARACTERISTICS

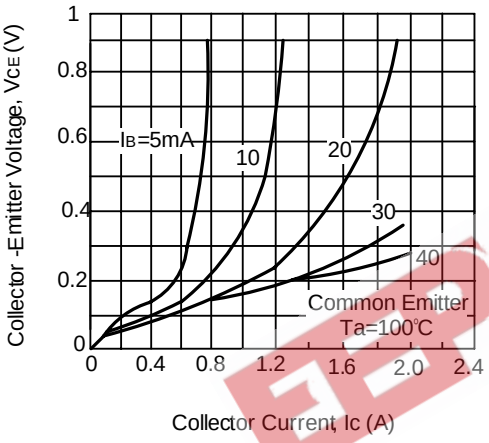
Ic-V_{CE}



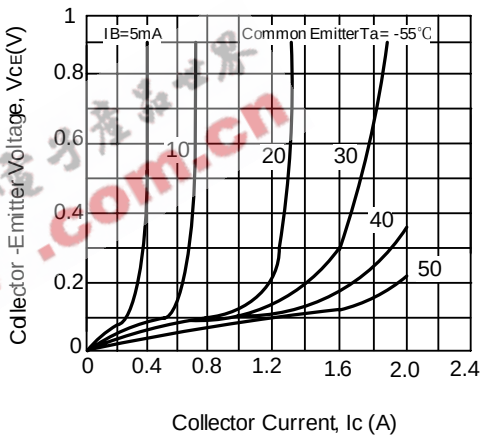
V_{CE}-Ic



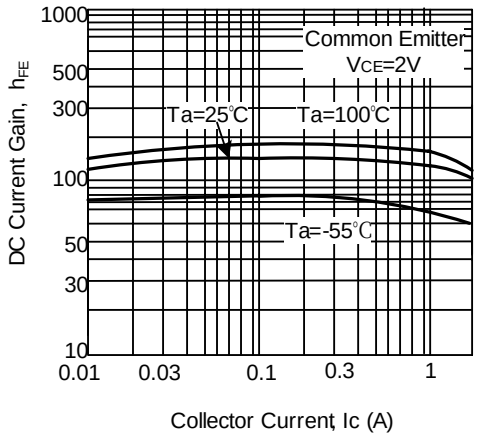
V_{CE}-Ic



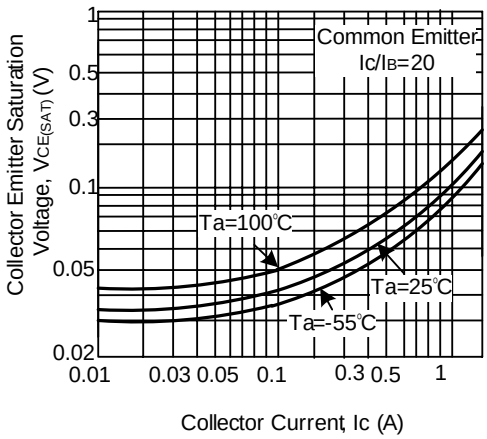
V_{CE}-Ic



h_{FE} -Ic

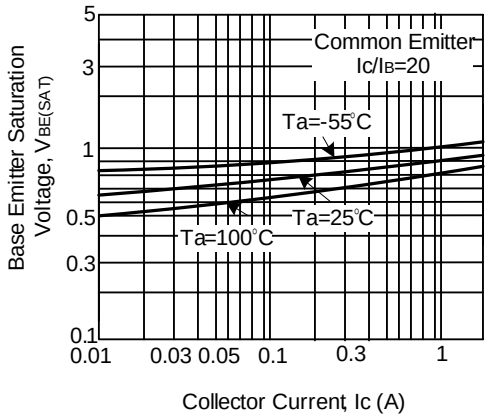


$V_{CE(SAT)}$ -Ic

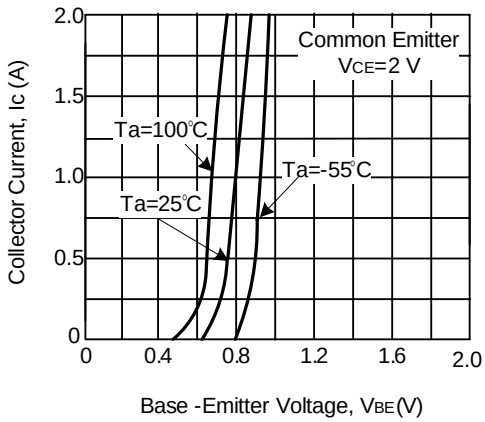


■ TYPICAL CHARACTERISTICS(Cont.)

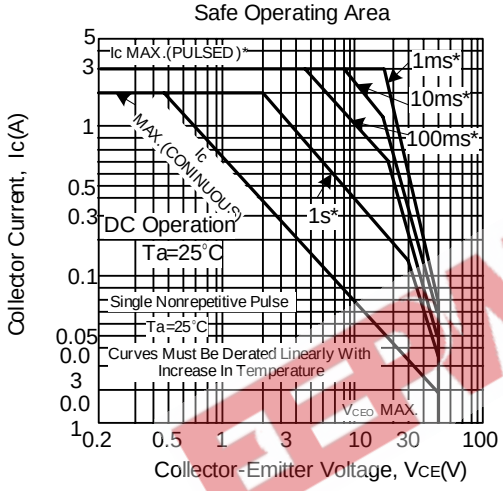
$V_{BE(SAT)}$ -Ic



Ic-V_{BE}



Safe Operating Area



Pc-Ta