



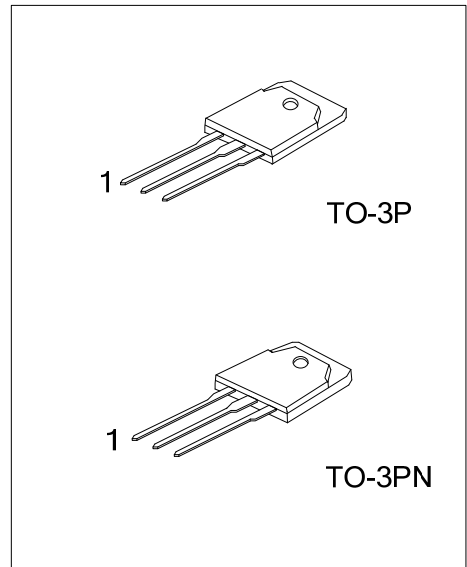
2SC3835

NPNEPITAXIAL SILICON TRANSISTOR

SWITCH NPN TRANSISTOR

■ **APLLICATION**

* Humidifier, DC-DC converter and general purpose.



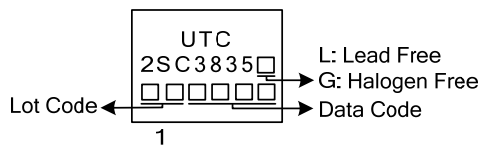
■ **ORDERING INFORMATION**

Ordering Number		Package	Pin Assignment			Packing
Lead Free	Halogen Free		1	2	3	
2SC3835L-x-T3P-T	2SC3835G-x-T3P-T	TO-3P	B	C	E	Tube
2SC3835L-x-T3N-T	2SC3835G-x-T3N-T	TO-3PN	B	C	E	Tube

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

<p>2SC3835L-x-T3P-T</p>	<p>(1) Packing Type</p> <p>(2) Package Type</p> <p>(3) Rank</p> <p>(4) Green Package</p>
	<p>(1) T: Tube</p> <p>(2) T3P: TO-3P, T3N: TO-3PN</p> <p>(3) x: referge to Classification of h_{FE}</p> <p>(4) L: Lead Free, G: Halogen Free and Lead Free</p>

■ **MARKING**



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

PARAMETER	SYMBOL	RATINGS	UNIT
Collector-Base Voltage	V_{CBO}	200	V
Collector-Emitter Voltage	V_{CEO}	120	V
Emitter-Base Voltage	V_{EBO}	8	V
Base Current	I_B	3	A
Collector Current	I_C	7	A
Collector Current (PULSE)		14	A
Collector Power Dissipation ($T_C=25^{\circ}\text{C}$)	P_C	70	W
Junction Temperature	T_J	150	$^{\circ}\text{C}$
Storage Temperature	T_{STG}	-55 ~ +150	$^{\circ}\text{C}$

- 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. The device is guaranteed to meet performance specification within 0°C ~ 70°C operating temperature range and assured by design from -20°C ~ 85°C .

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

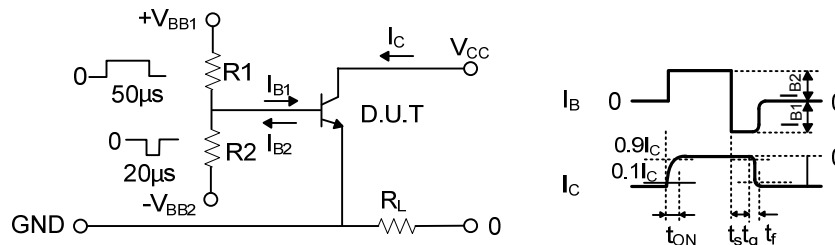
PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Collector Emitter Breakdown Voltage	BV_{CEO}	$I_C=50\text{mA}$	120			V
Collector Cut-Off Current	I_{CBO}	$V_{CB}=200\text{V}, I_E=0$			100	μA
Emitter Cut-Off Current	I_{EBO}	$V_{EB}=8\text{V}, I_C=0$			100	μA
DC Current Transfer Ratio	h_{FE}	$V_{CE}=4\text{V}, I_C=3\text{A}$	70		220	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=3\text{A}, I_B=0.3\text{A}$			0.5	V
Base-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C=3\text{A}, I_B=0.3\text{A}$			1.2	V
Transition Frequency	f_T	$V_{CE}=12\text{V}, I_E=-0.5\text{mA}$		30		MHz
Output Capacitance	C_{OB}	$V_{CB}=10\text{V}, I_E=0\text{A}, f=1\text{MHz}$		110		pF
Turn-on Time	t_{ON}	See specified Test Circuit			0.5	μS
Storage Time	t_{STG}				3.0	μS
Fall Time	t_f				0.5	μS

■ CLASSIFICATION of h_{FE}

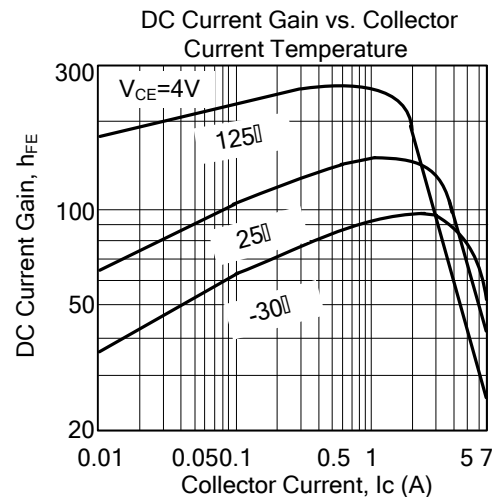
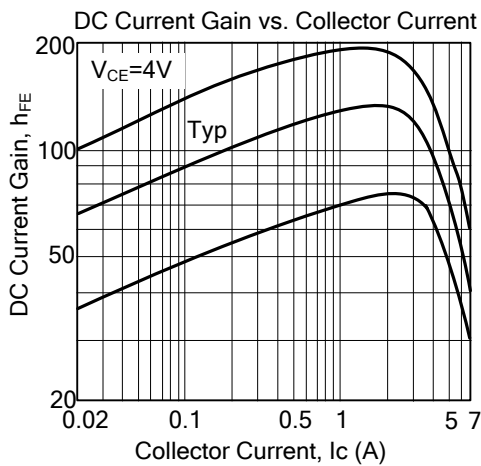
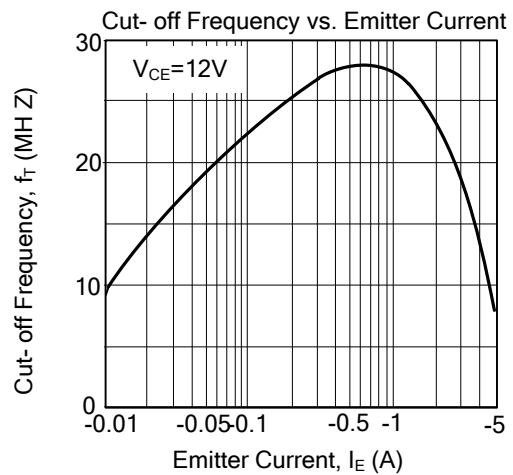
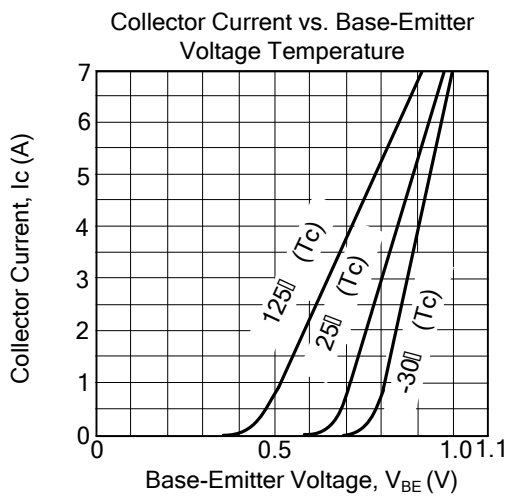
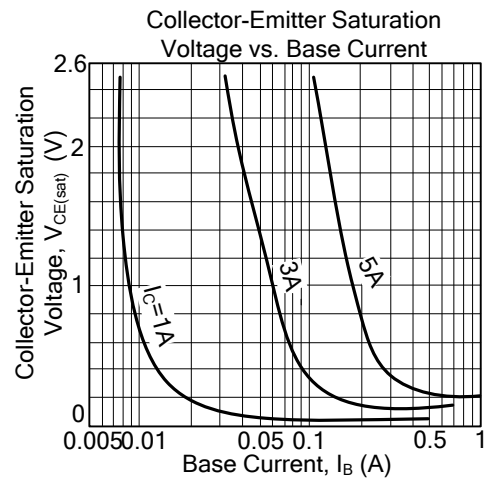
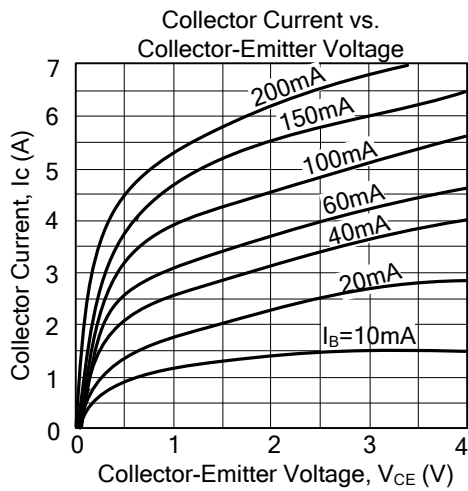
RANK	A	B	C
RANGE	70-130	120-170	160-220

■ TYPICAL SWITCHING CHARACTERISTICS (Common Emitter)

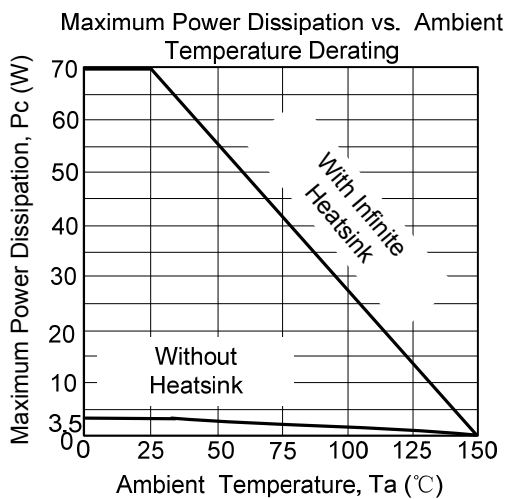
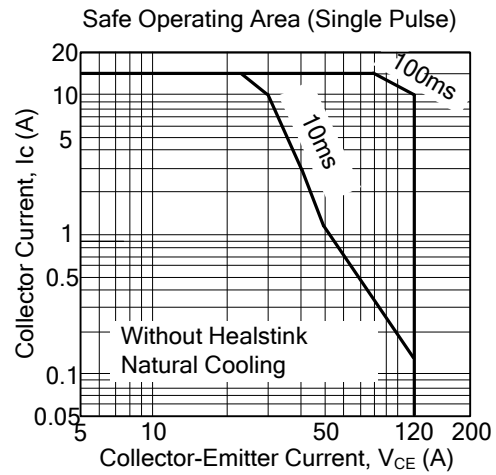
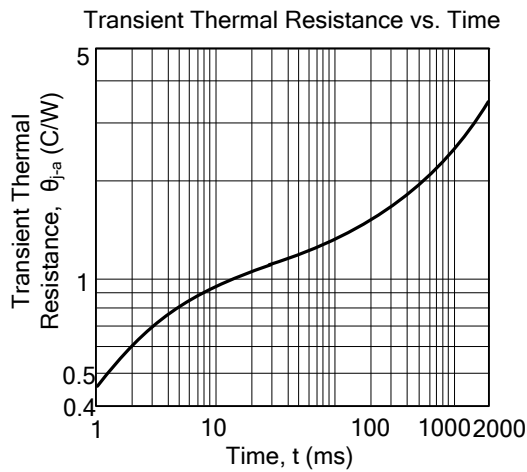
V_{CC} (V)	R_L (Ω)	I_C (A)	V_{BB1} (V)	V_{BB2} (V)	I_{B1} (A)	I_{B2} (A)
50	16.7	3	10	-5	0.3	-0.6



■ TYPICAL CHARACTERISTICS



■ TYPICAL CHARACTERISTICS (Cont.)



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