



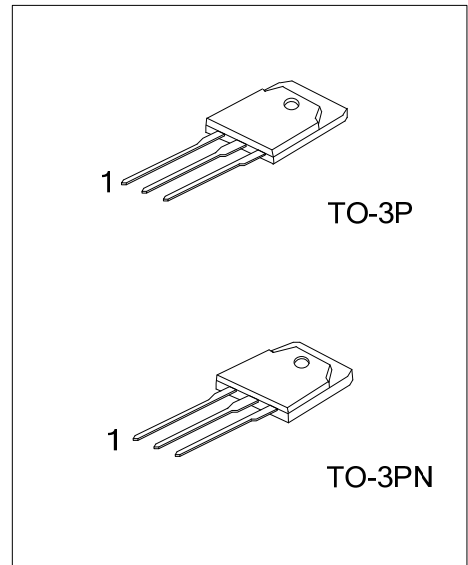
2SC3835

NPNEPITAXIAL SILICON TRANSISTOR

SWITCH NPN TRANSISTOR

■ **APLLICATION**

* Humidifier, DC-DC converter and general purpose.



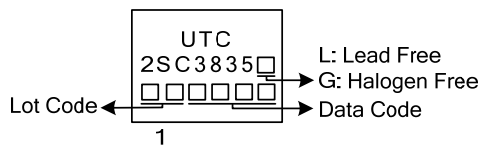
■ **ORDERING INFORMATION**

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) T: Tube (2) T3P: TO-3P, T3N: TO-3PN (3) x: reference to Classification of h_{FE} (4) L: Lead Free, G: Halogen Free and Lead Free</p>
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■ **MARKING**



■ ABSOLUTE MAXIMUM RATING (T_A=25°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°C)	P _C	70	W
Junction Temperature	T _J	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. 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°C, unless otherwise specified)

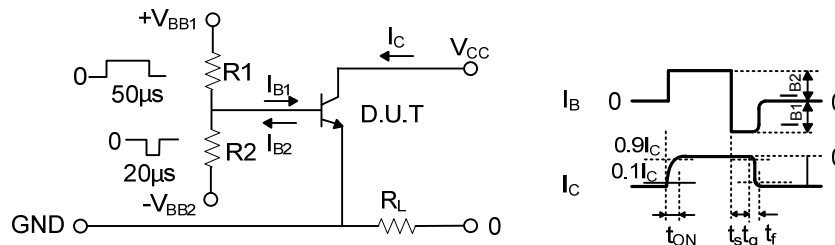
PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Collector Emitter Breakdown Voltage	BV _{CEO}	I _C = 50mA	120			V
Collector Cut-Off Current	I _{CBO}	V _{CB} =200V, I _E =0			100	μA
Emitter Cut-Off Current	I _{EBO}	V _{EB} =8V, I _C =0			100	μA
DC Current Transfer Ratio	h _{FE}	V _{CE} =4V, I _C =3A	70		220	
Collector-Emitter Saturation Voltage	V _{CE(sat)}	I _C =3A, I _B =0.3A			0.5	V
Base-Emitter Saturation Voltage	V _{BE(sat)}	I _C =3A, I _B =0.3A			1.2	V
Transition Frequency	f _T	V _{CE} =12V, I _E =-0.5mA		30		MHz
Output Capacitance	C _{OB}	V _{CB} =10V, I _E = 0 A, f=1MHz		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}

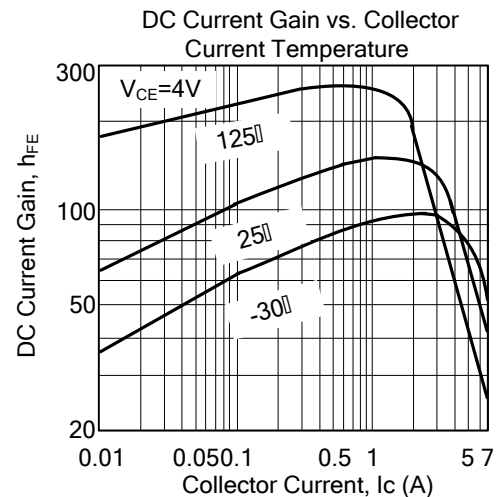
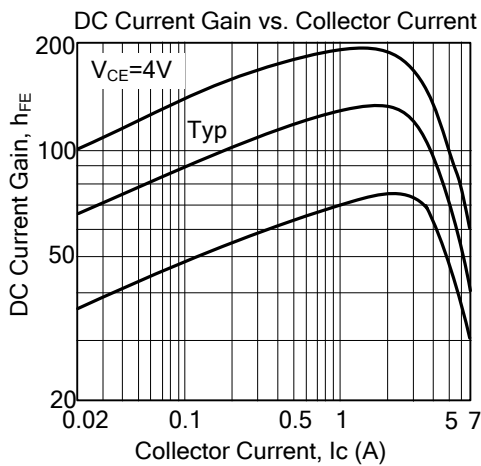
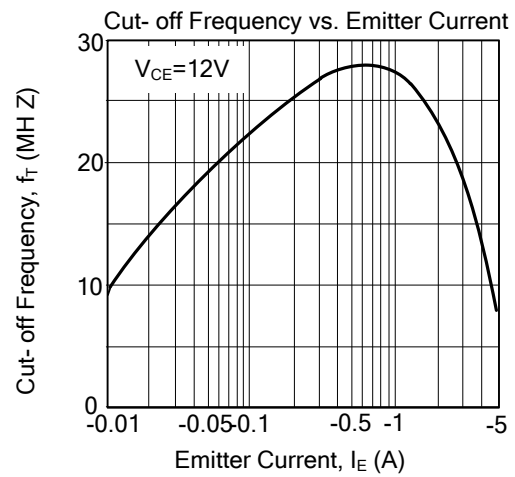
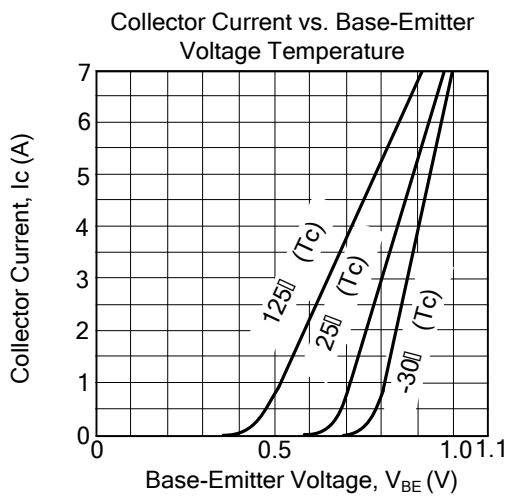
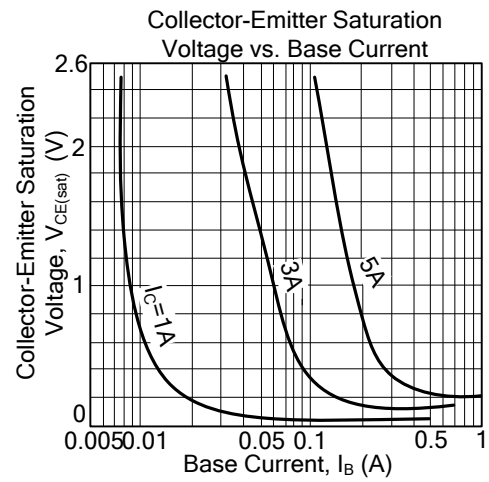
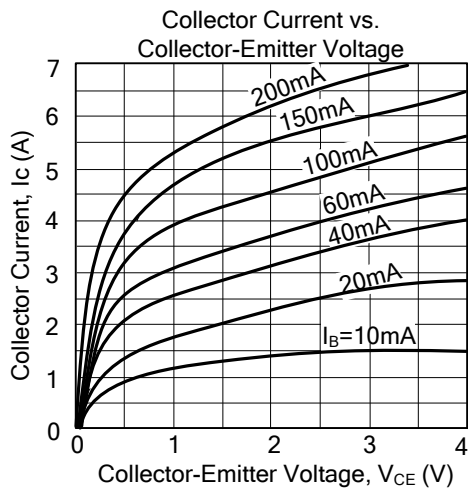
RANK	A	B	C
RANGE	70-130	120-170	160-220

■ TYPICAL SWITCHING CHARACTERISTICS (Common Emitter)

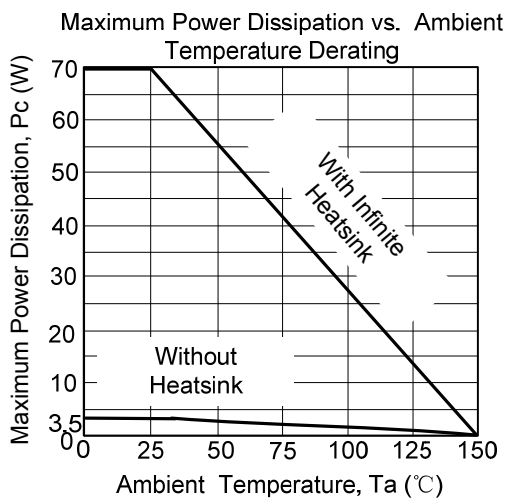
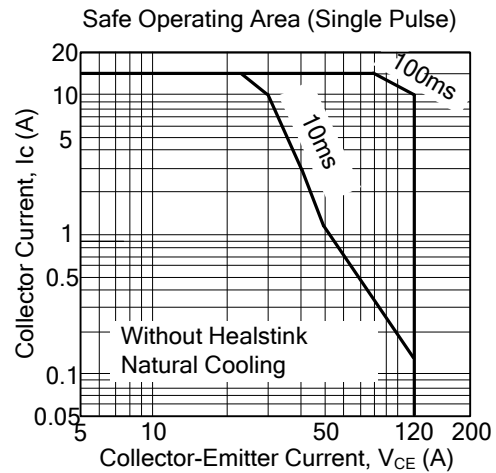
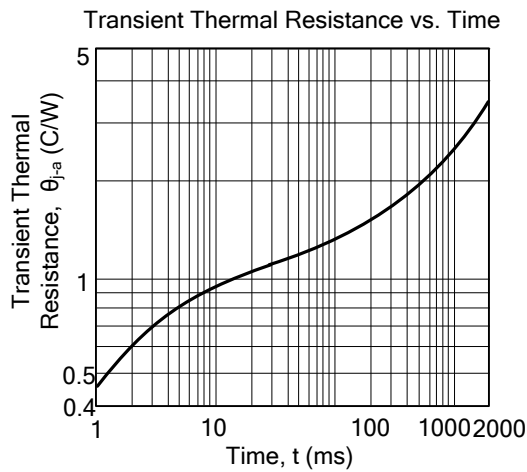
V _{CC} (V)	R _L (Ω)	I _C (A)	V _{BB1} (V)	V _{BB2} (V)	I _{B1} (A)	I _{B2} (A)
50	16.7	3	10	-5	0.3	-0.6



■ TYPICAL CHARACTERISTICS



■ TYPICAL CHARACTERISTICS (Cont.)



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