

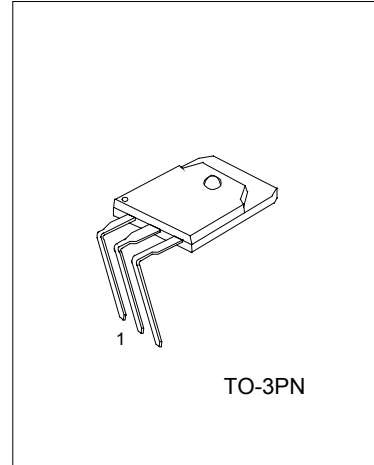
UTC2SC3835

NPN EPITAXIAL SILICON TRANSISTOR

SWITCH NPN TRANSISTOR

APPLICATION

*Humidifier,DC-DC converter,and general purpose.



1: BASE 2:COLLECTOR 3: EMITTER

ABSOLUTE MAXIMUM RATINGS (Ta=25°C)

PARAMETER	SYMBOL	RATING	UNIT
Collector-Base Voltage	V _{CB0}	200	V
Collector-Emitter Voltage	V _{CEO}	120	V
Emitter-Base Voltage	V _{EB0}	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

ELECTRICAL CHARACTERISTICS (Ta=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 _{EB0}	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

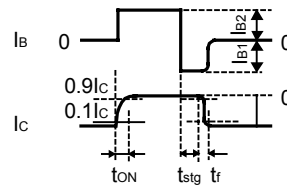
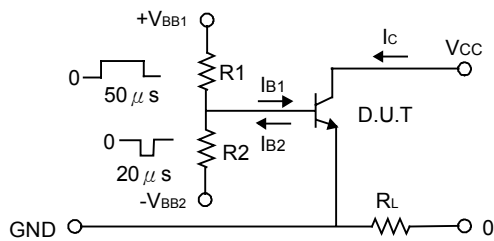
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CLASSIFICATION of hFE

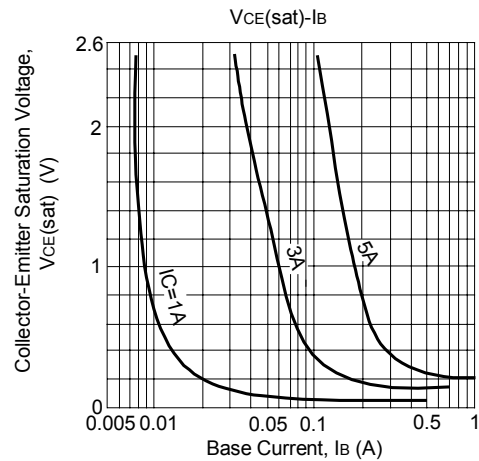
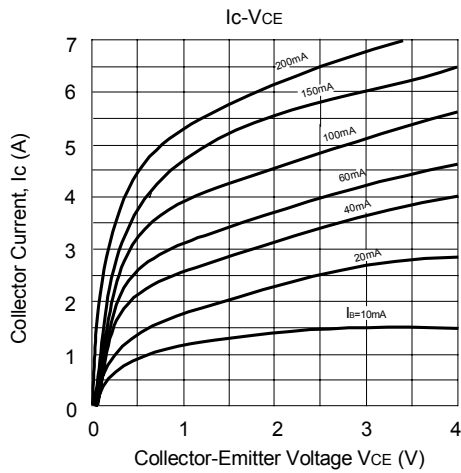
RANK	A	B	C
RANGE	70-130	120-170	160-220

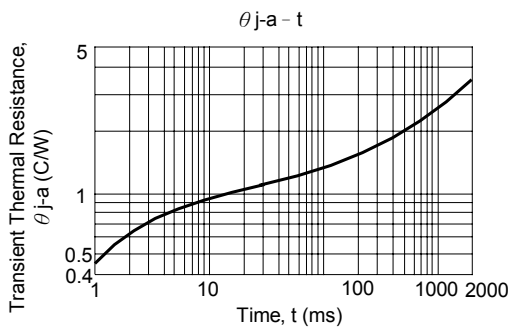
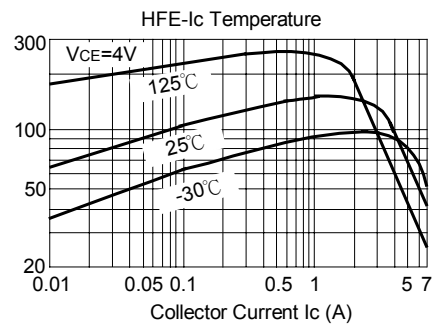
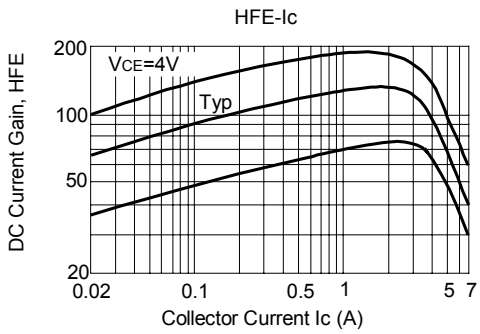
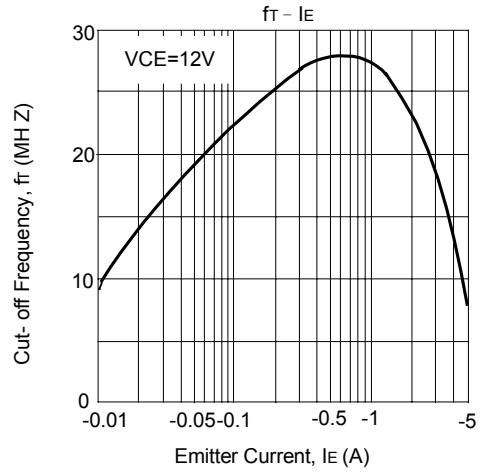
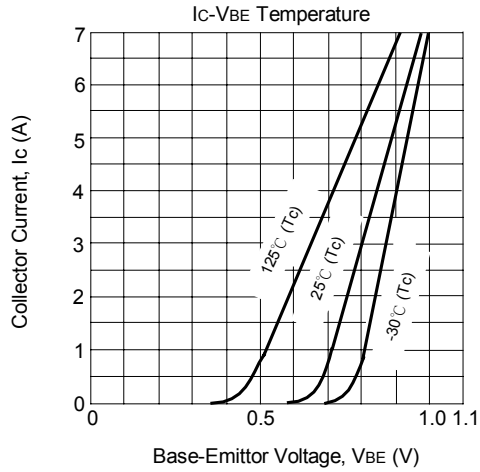
Typical Switching Characteristics(Common Emitter)

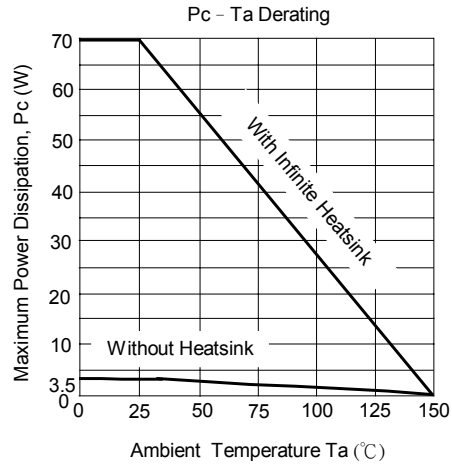
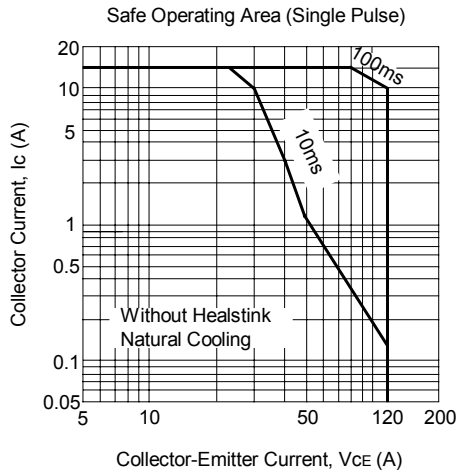
V _{CC} (V)	R _L (Ω)	I _C (A)	V _{BB1} (V)	V _{BB2} (V)	I _{B1} (A)	I _{B2} (A)
50	16.7	3	10	-5	0.3	-0.6



ELECTRICAL CHARACTERISTICS CURVES







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