



2SC3834

NPN SILICON TRANSISTOR

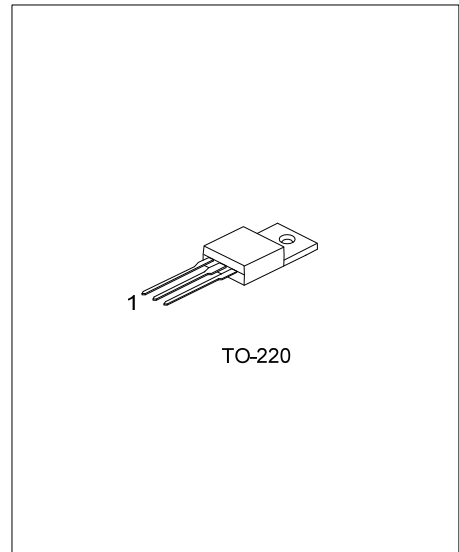
SWITCH NPN TRANSISTOR

■ DESCRIPTION

The UTC **2SC3834** is an epitaxial planar type NPN silicon transistor..

■ FEATURES

* Humidifier, DC-DC converter, and general purpose



Lead-free: 2SC3834L
Halogen-free: 2SC3834G

■ ORDERING INFORMATION

Ordering Number			Package	Pin Assignment			Packing
Normal	Lead Free Plating	Halogen Free		1	2	3	
2SC3834-TA3-T	2SC3834L-TA3-T	2SC3834G-TA3-T	TO-220	B	C	E	Tube

<p>2SC3834L-TA3-T</p> <p>(1)Packing Type (2)Package Type (3)Lead Plating</p>	<p>(1) T: Tube (2) TA3: TO-220 (3) G: Halogen Free, L: Lead Free, Blank: Pb/Sn</p>
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■ ABSOLUTE MAXIMUM RATING ($T_a=25^\circ\text{C}$)

PARAMETER	SYMBOL	RATINGS	UNIT
Collector-Base Voltage	V_{CB0}	200	V
Collector-emitter voltage	V_{CEO}	120	V
Emitter-Base Voltage	V_{EBO}	8	V
Collector Current (Pulse)	I_C	7	A
Base Current	I_B	3	A
Collector Dissipation ($T_c=25^\circ\text{C}$)	P_C	50	W
Junction Temperature	T_J	+150	$^\circ\text{C}$
Storage Temperature	T_{STG}	-55 ~ +150	$^\circ\text{C}$

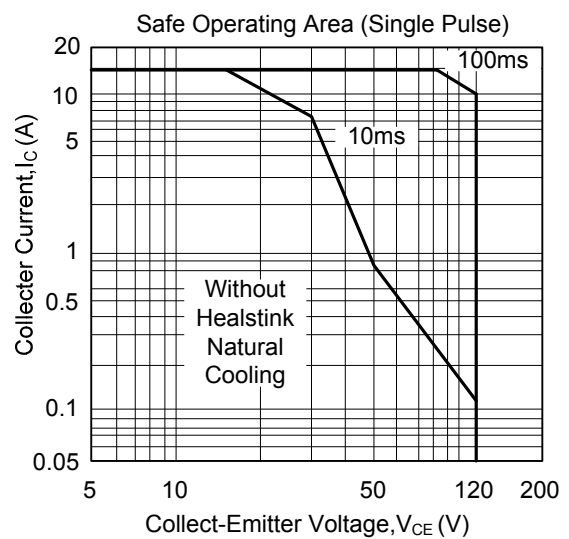
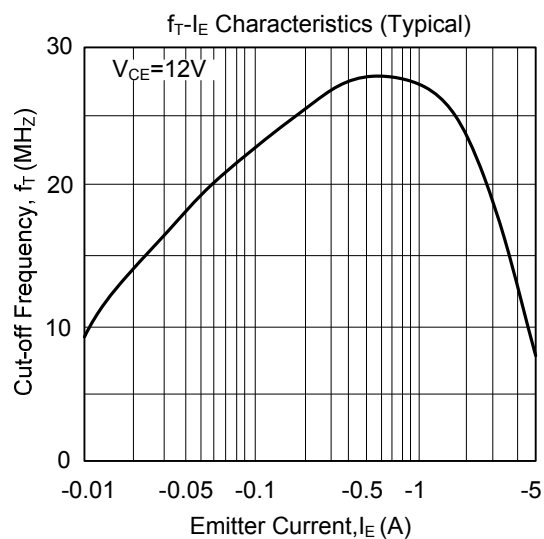
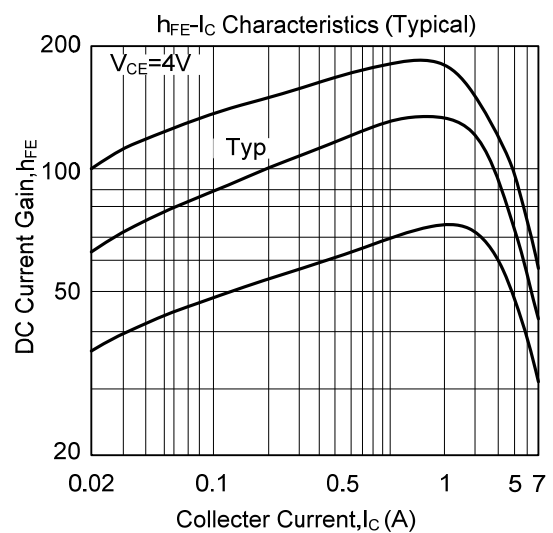
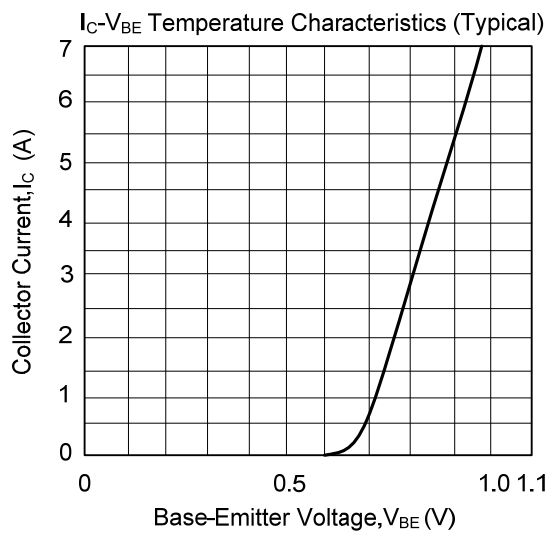
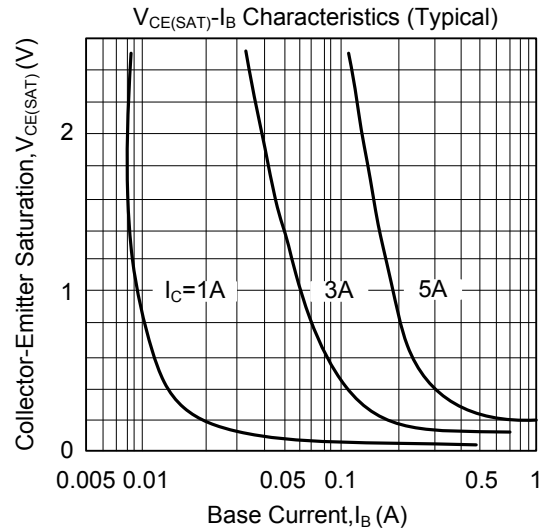
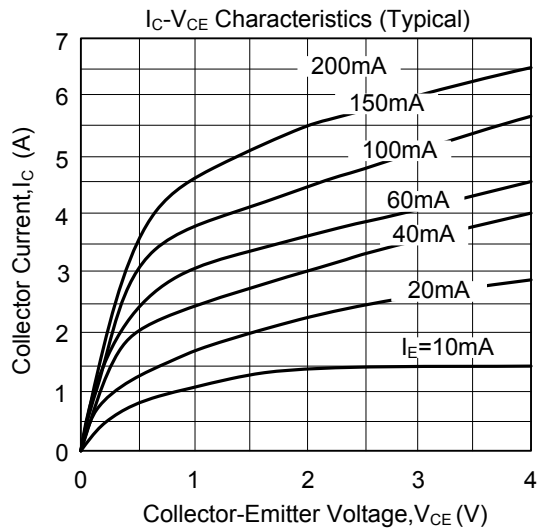
Note Absolute maximum ratings are those values beyond which the device could be permanently damaged.

Absolute maximum ratings are stress ratings only and functional device operation is not implied.

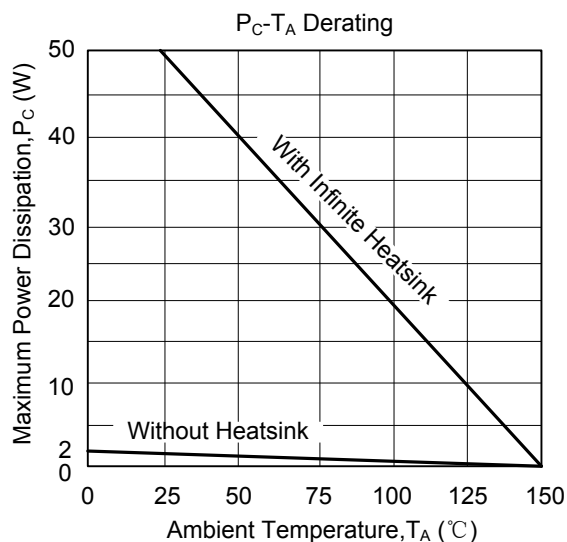
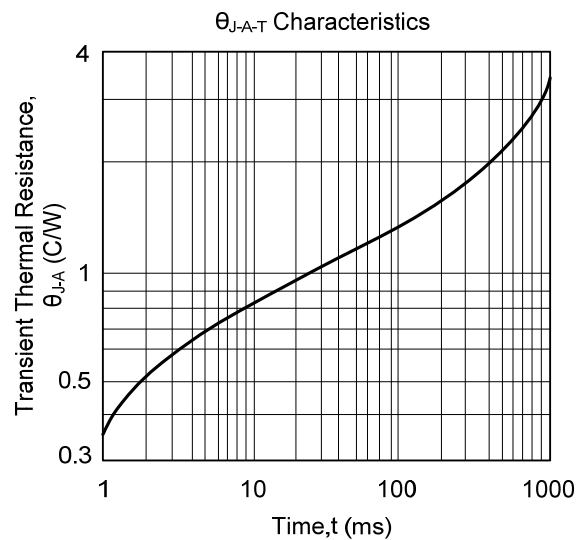
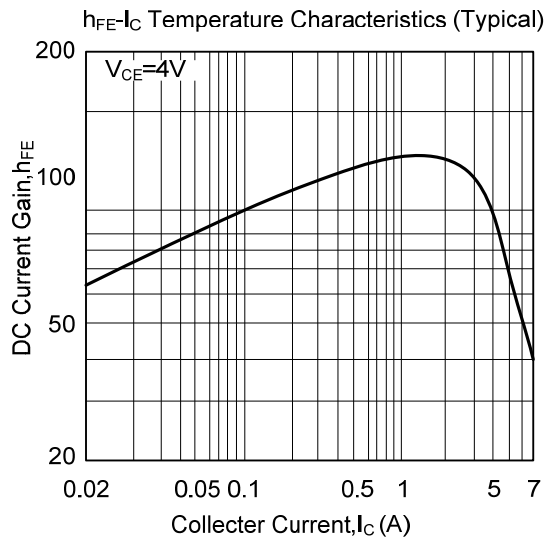
■ ELECTRICAL CHARACTERISTICS ($T_a=25^\circ\text{C}$, unless otherwise specified)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Collector-Emitter Breakdown Voltage	BV_{CEO}	$I_C=50\text{mA}$	120			V
Collector Cutoff Current	I_{CBO}	$V_{CB}=200\text{V}, I_E=0\text{A}$			100	μA
Emitter Cutoff Current	I_{EBO}	$V_{EB}=8\text{V}, I_C=0\text{A}$			100	μA
DC Current Gain (Note)	h_{FE}	$V_{CE}=4\text{V}, I_C=3\text{A}$	70		220	
Collector-Emitter Saturation Voltage	$V_{CE(SAT)}$	$I_C=3\text{A}, I_B=0.3\text{mA}$			0.5	V
Base-Emitter Saturation Voltage	$V_{BE(SAT)}$	$I_C=3\text{A}, I_B=0.3\text{mA}$			1.2	V
Current Gain Bandwidth Product	f_T	$I_E=-0.5\text{mA}, V_{CE}=12\text{V}, f=100\text{MHz}$		30		MHz
Output Capacitance	C_{ob}	$V_{CB}=10\text{V}, I_E=0\text{A}, f=1\text{MHz}$		110		pF

TYPICAL CHARACTERISTICS



■ TYPICAL CHARACTERISTICS(Cont.)



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