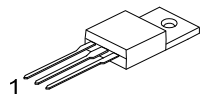
2SC3834

NPN SILICON TRANSISTOR

SWITCH NPN TRANSISTOR



TO-220

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

■ DESCRIPTION

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

■ FEATURES

* Humidifier, DC-DC converter, and general purpose

■ 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

2SC3834L-TA3-T

(1)Packing Type
(2)Package Type
(3)Lead Plating

(1) T: Tube
(2) TA3: TO-220
(3) G: Halogen Free, L: Lead Free, Blank: Pb/Sn

■ ABSOLUTE MAXIMUM RATING (T_a=25°C)

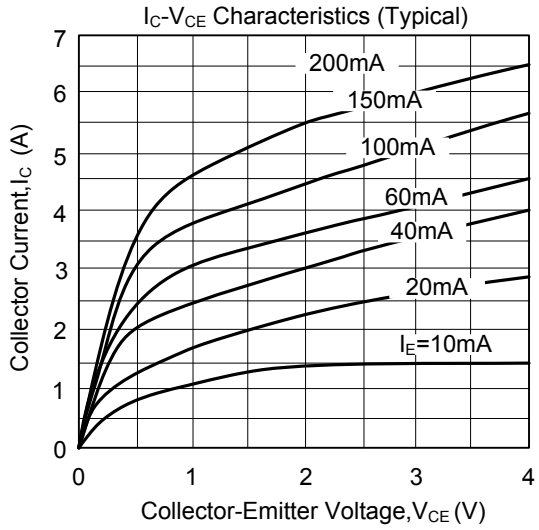
PARAMETER	SYMBOL	RATINGS	UNIT
Collector-Base Voltage	V_{CBO}	200	V
Collector-emitter voltage	V_{CEO}	120	V
Emitter-Base Voltage	V_{EBO}	8	V
Collector Current (Pulse)	I_C	7	A
Base Current	I_B	3	A
Collector Dissipation (T_C=25°C)	P_C	50	W
Junction Temperature	T_J	+150	°C
Storage Temperature	T_{STG}	-55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

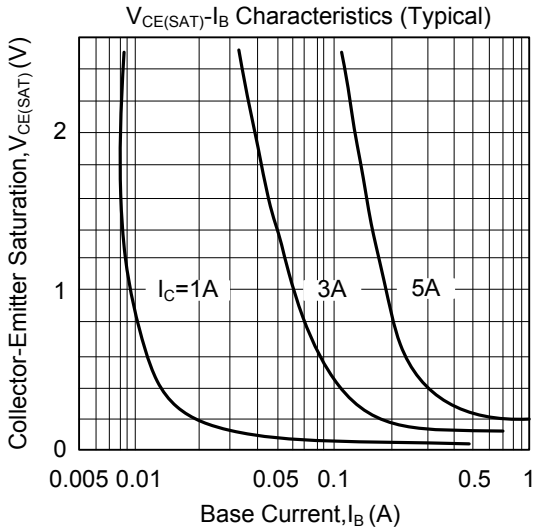
Note Absolute maximum ratings are those values beyond which the device could be permanently damaged. Absolute maximum ratings are stress ratings only and functional device operation is not implied.

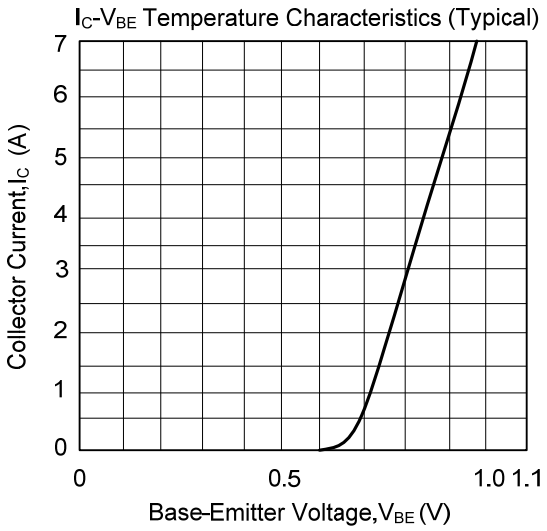
■ ELECTRICAL CHARACTERISTICS (T_a=25°C, unless otherwise specified)

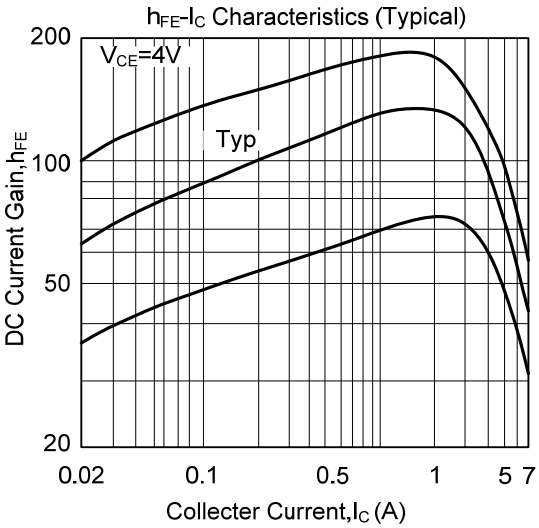
PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Collector-Emitter Breakdown Voltage	BV_{CEO}	I_C= 50mA	120			V
Collector Cutoff Current	I_{CBO}	V_{CB}=200V, I_E=0A			100	μA
Emitter Cutoff Current	I_{EBO}	V_{EB}=8V, I_C=0A			100	μA
DC Current Gain (Note)	h_{FE}	V_{CE}=4V, I_C=3A	70		220	
Collector-Emitter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

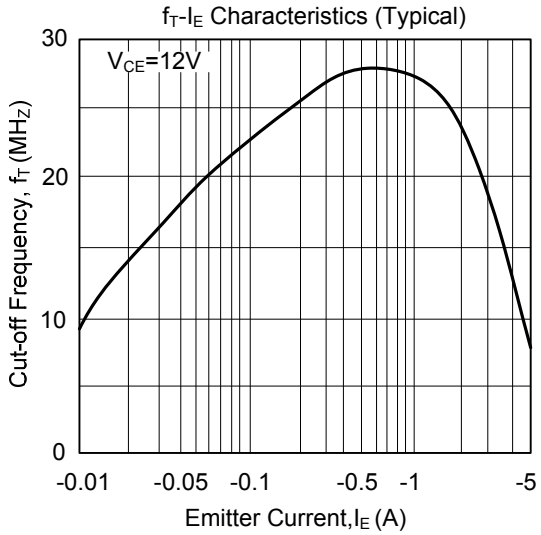
■ TYPICAL CHARACTERISTICS

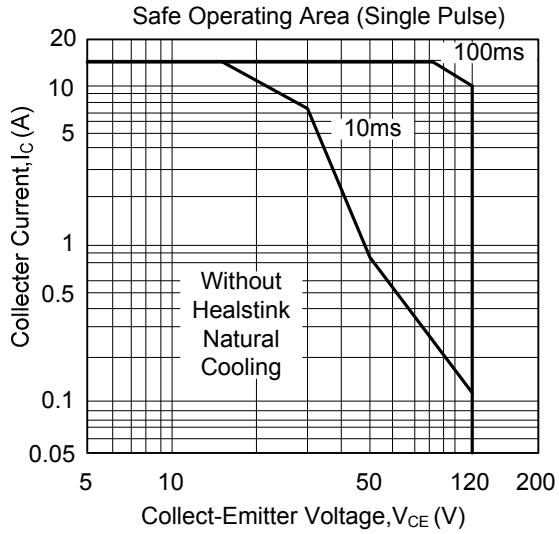






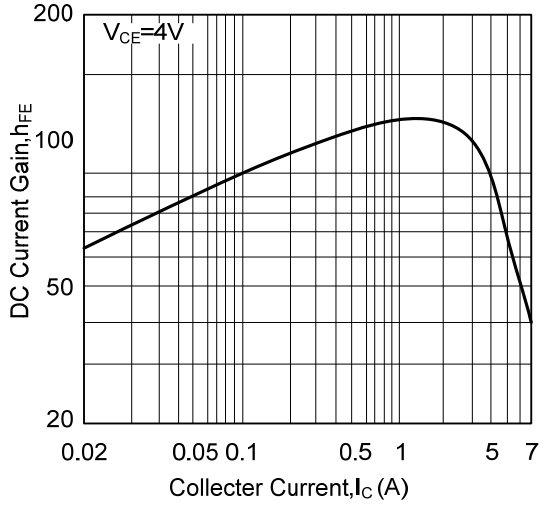




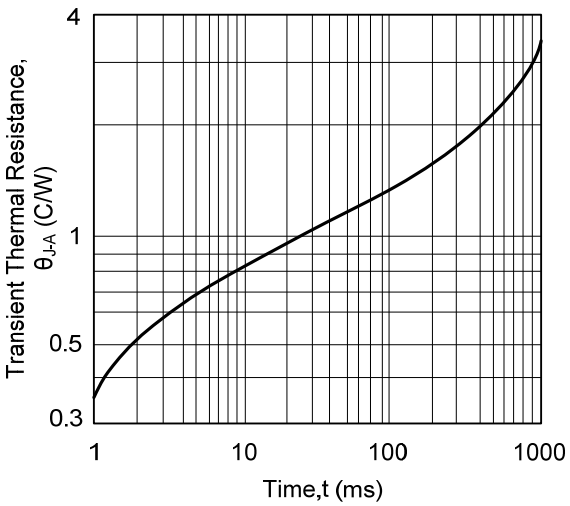


■ TYPICAL CHARACTERISTICS(Cont.)

h_{FE}-I_C Temperature Characteristics (Typical)



$\theta_{J\text{-}A\text{-}T}$ Characteristics



P_C-T_A Derating