

2SC3834

Silicon NPN Triple Diffused Planar Transistor (Switching Transistor)

Application : Humidifier, DC-DC Converter, and General Purpose

Absolute maximum ratings (Ta=25°C)

Symbol	2SC3834	Unit
V _{CB0}	200	V
V _{CE0}	120	V
V _{EB0}	8	V
I _C	7(Pulse14)	A
I _B	3	A
P _C	50(T _C =25°C)	W
T _J	150	°C
T _{stg}	-55 to +150	°C

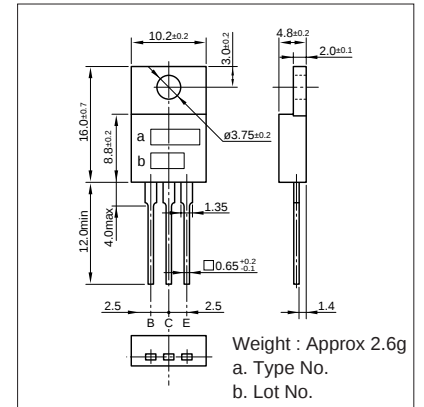
■Electrical Characteristics (Ta=25°C)

Symbol	Conditions	2SC3834	Unit
ICBO	$V_{CB}=200V$	100max	μA
IEBO	$V_{EB}=8V$	100max	μA
$V_{(BR)CEO}$	$I_C=50mA$	120min	V
h_{FE}	$V_{CE}=4V, I_C=3A$	70 to 220	
$V_{CE(sat)}$	$I_C=3A, I_B=0.3A$	0.5max	V
$V_{BE(sat)}$	$I_C=3A, I_B=0.3A$	1.2max	V
f_T	$V_{CE}=12V, I_E=-0.5A$	30typ	MHz
C_{OB}	$V_{CB}=10V, f=1MHz$	110typ	pF

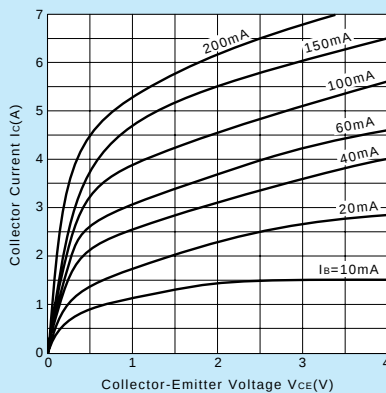
■ Typical Switching Characteristics (Common Emitter)

V _{CC} (V)	R _L (Ω)	I _C (A)	V _{BB1} (V)	V _{BB2} (V)	I _{B1} (A)	I _{B2} (A)	t _{on} (μs)	t _{stg} (μs)	t _f (μs)
50	16.7	3	10	-5	0.3	-0.6	0.5max	3.0max	0.5max

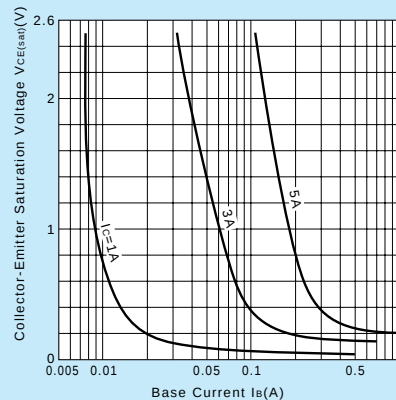
External Dimensions MT-25(TO220)



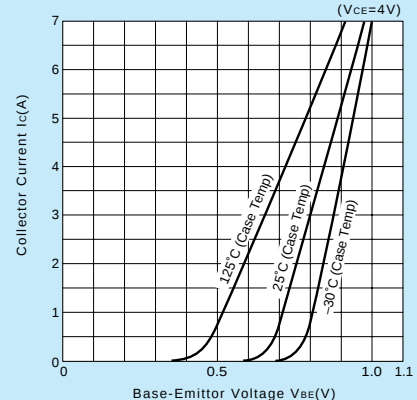
I_C - V_{CE} Characteristics (Typical)



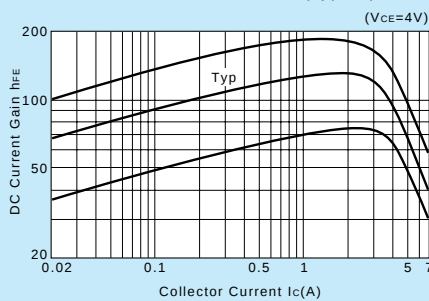
V_{CE(sat)}-I_B Characteristics (Typical)



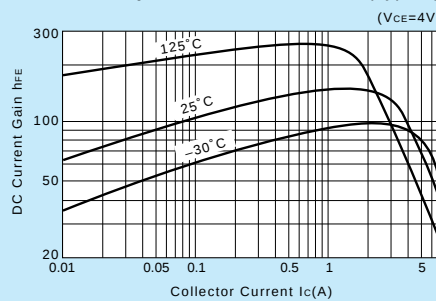
I_C-V_{BE} Temperature Characteristics (Typical)



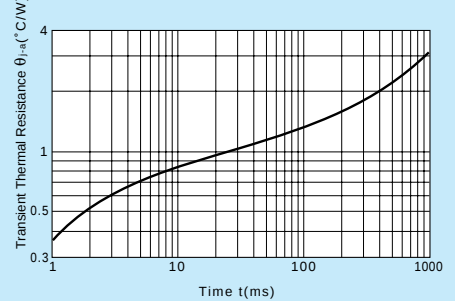
$h_{FE}-I_C$ Characteristics (Typical)



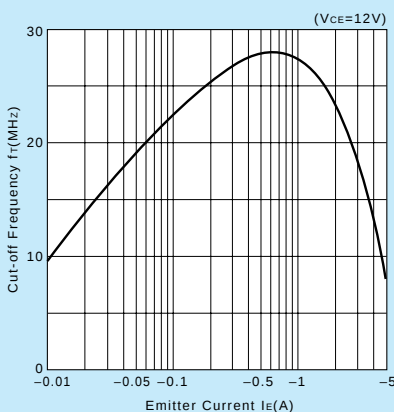
$h_{FE}-I_C$ Temperature Characteristics (Typical)



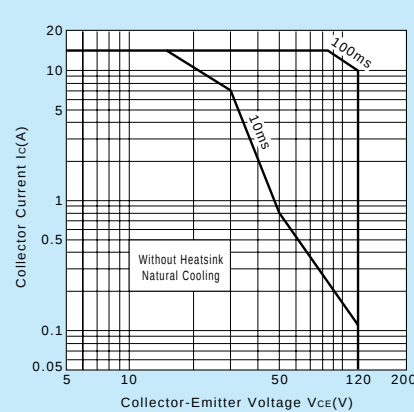
θ_{j-a-t} Characteristics



f_T-I_E Characteristics (Typical)



Safe Operating Area (Single Pulse)



Pc-Ta Derating

