

2SC3858

Silicon NPN Triple Diffused Planar Transistor (Complement to type 2SA1494)

Application : Audio and General Purpose

Absolute maximum ratings (Ta=25°C)

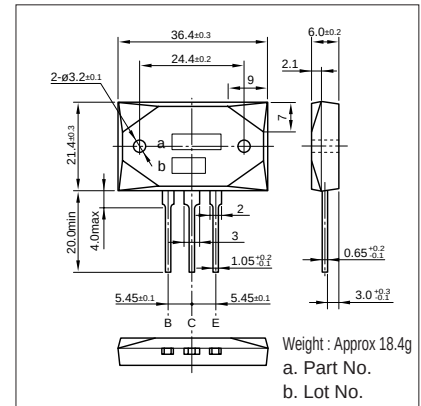
Symbol	Ratings	Unit
VCBO	200	V
VCEO	200	V
VEBO	6	V
Ic	17	A
IB	5	A
Pc	200(Tc=25°C)	W
Tj	150	°C
Tstg	-55 to +150	°C

Electrical Characteristics (Ta=25°C)

Symbol	Conditions	Ratings	Unit
ICBO	VCB=200V	100max	μA
IEBO	VEB=6V	100max	μA
V(BR)CEO	Ic=50mA	200min	V
hFE	VCE=4V, Ic=8A	50min*	
VCE(sat)	Ic=10A, IB=1A	2.5max	V
fr	VCE=12V, IE=-1A	20typ	MHz
COB	VCB=10V, f=1MHz	300typ	pF

*hFE Rank Y(50 to 100), P(70 to 140), G(90 to 180)

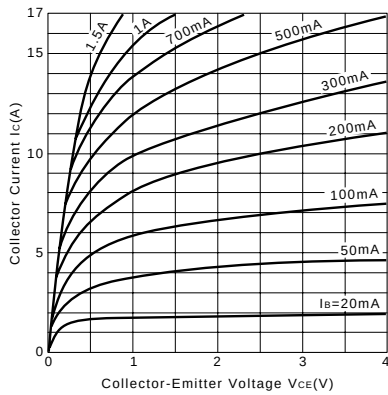
External Dimensions MT-200



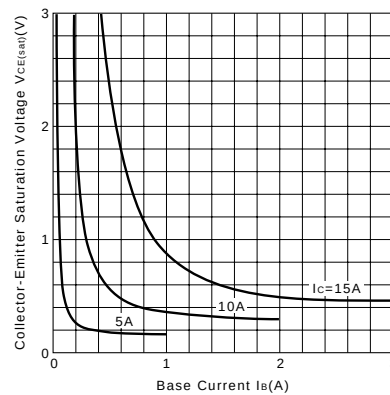
Typical Switching Characteristics (Common Emitter)

VCC (V)	RL (Ω)	Ic (A)	VBB1 (V)	VBB2 (V)	IB1 (A)	IB2 (A)	ton (μs)	tstg (μs)	tf (μs)
40	4	10	10	-5	1	-1	0.5typ	1.8typ	0.6typ

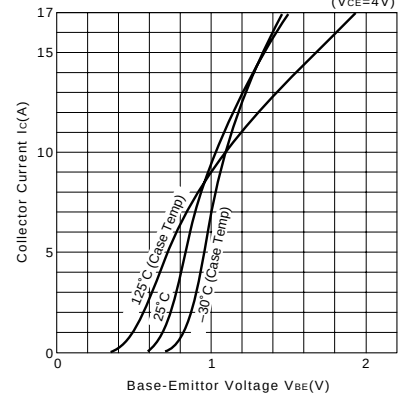
Ic-VCE Characteristics (Typical)



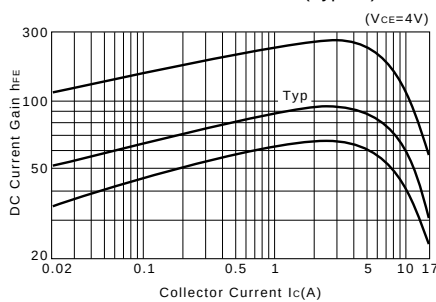
VCE(sat)-IB Characteristics (Typical)



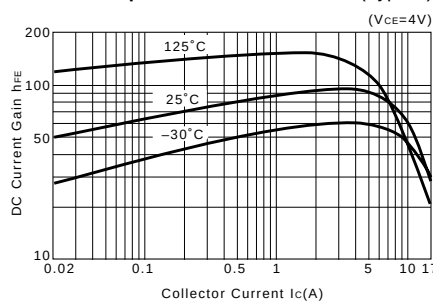
Ic-VBE Temperature Characteristics (Typical)



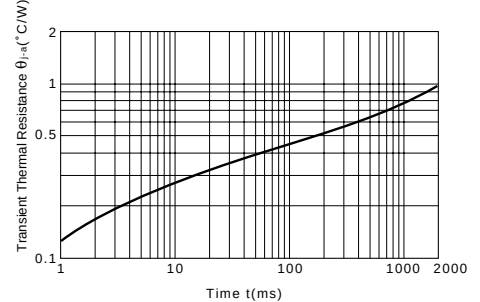
hFE-Ic Characteristics (Typical)



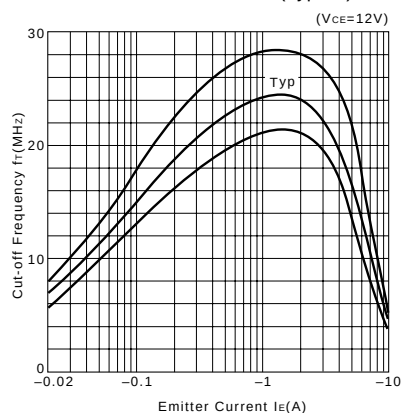
hFE-Ic Temperature Characteristics (Typical)



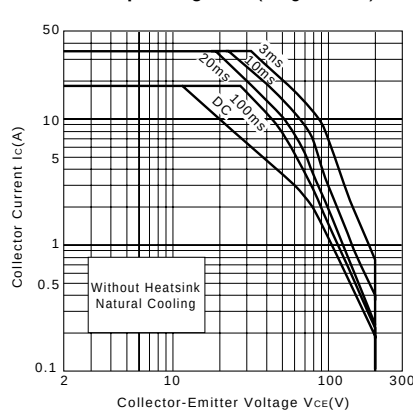
θJA-t Characteristics



fr-IE Characteristics (Typical)



Safe Operating Area (Single Pulse)



Pc-Ta Derating

