

2SC3856

Silicon NPN Triple Diffused Planar Transistor (Complement to type 2SA1492)

Application : Audio and General Purpose

Absolute maximum ratings (Ta=25°C)

Symbol	Ratings	Unit
VCBO	200	V
VCEO	180	V
VEBO	6	V
IC	15	A
IB	4	A
PC	130(Tc=25°C)	W
Tj	150	°C
Tstg	-55 to +150	°C

Electrical Characteristics (Ta=25°C)

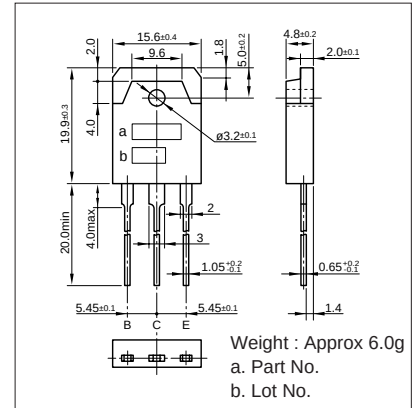
Symbol	Conditions	Ratings	Unit
ICBO	VCB=200V	100max	μA
IEBO	VEB=6V	100max	μA
V(BR)CEO	IC=50mA	180min	V
hFE	VCE=4V, IC=3A	50min*	
VCE(sat)	IC=5A, IB=0.5A	2.0max	V
fr	VCE=12V, IE=-0.5A	20typ	MHz
COB	VCB=10V, f=1MHz	300typ	pF

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

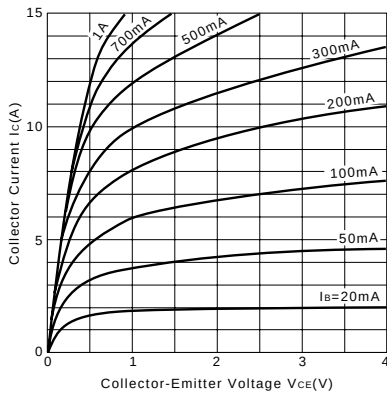
Typical Switching Characteristics (Common Emitter)

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

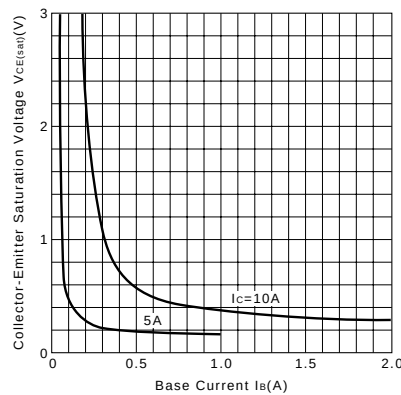
External Dimensions MT-100(TO3P)



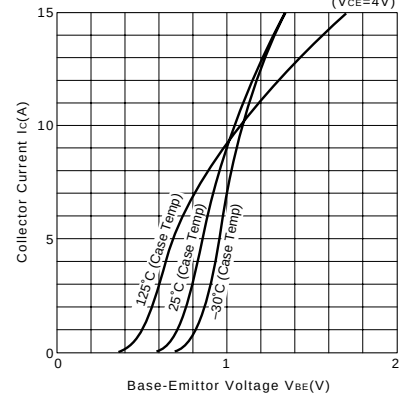
IC-VCE Characteristics (Typical)



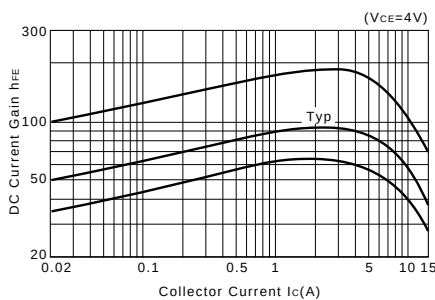
VCE(sat)-IB Characteristics (Typical)



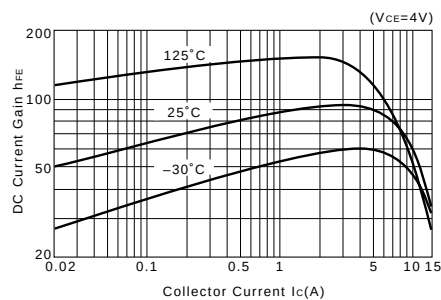
IC-VBE Temperature Characteristics (Typical)



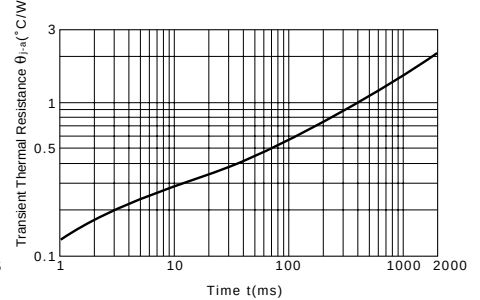
hFE-IC Characteristics (Typical)



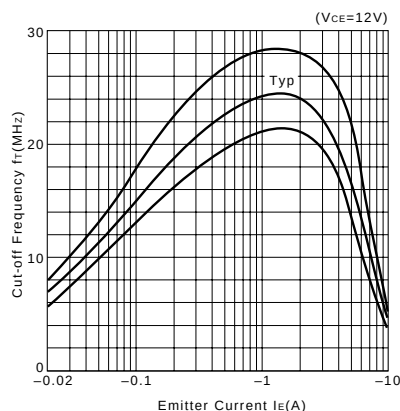
hFE-IC Temperature Characteristics (Typical)



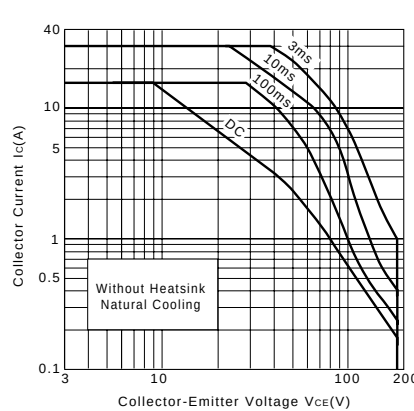
θJA-t Characteristics



fr-IE Characteristics (Typical)



Safe Operating Area (Single Pulse)



PC-Ta Derating

