2SC3852
2SC3852A

Silicon NPN Triple Diffused Planar

☆High h_{FE}, Low $V_{CE(sat)}$ Transistor

Application Example :
Driver for Solehoid and Motor, Series Regulator, and General Purpose

● Outline Drawing 4 ..... FM20

Absolute Maximum Ratings (Ta=25°C)

Symbol	2SC3852	2SC3852A	Unit
V_{CBO}	80	100	V
V_{CEO}	60	80	V
V_{EBO}	6		V
I_C	3		A
I_B	1		A
P_C	25 (Tc =25°C)		W
T_j	150		°C
Tstg	−55~+150		°C

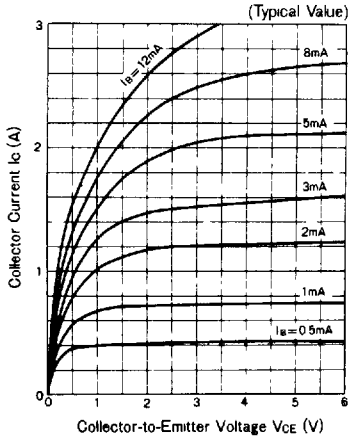
Electrical Characteristics (Ta=25°C)

Symbol	Conditions	2SC3852	2SC3852A	Unit
I_{CBO}		10max	10max	μA
	V_{CB}=	80	100	V
I_{EBO}	V_{EB}=6V	100max		μA
$V_{(BR)CEO}$	I_C =25mA	60min	80min	V
h_{FE}	V_{CE}=4V, I_C=0.5A	500min		
$V_{CE(sat)}$	I_C =2A, I_B=50mA	0.5max		V
f_T	V_{CE}=12V, I_E=−0.2A	15typ		MHz

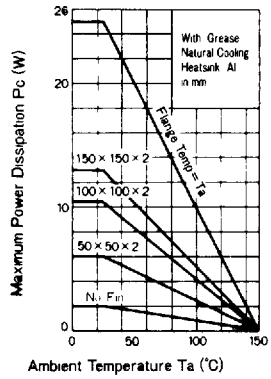
Typical Switching Characteristics (Common Emitter)

V_{CC} (V)	R_L (Ω)	I_C (A)	V_{BB1} (V)	V_{BB2} (V)	I_{B1} (mA)	I_{B2} (mA)	ton (μs)	tstg (μs)	tf (μs)
20	20	1.0	10	−5	15	−30	0.8typ	3.0typ	1.2typ

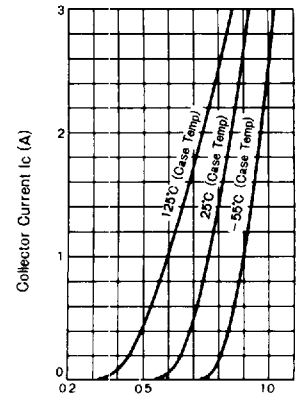
I_C – V_{CE} Characteristics (Typical Value)



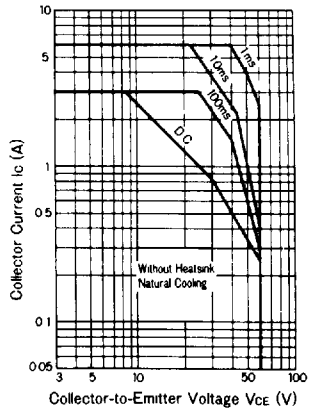
Power Derating



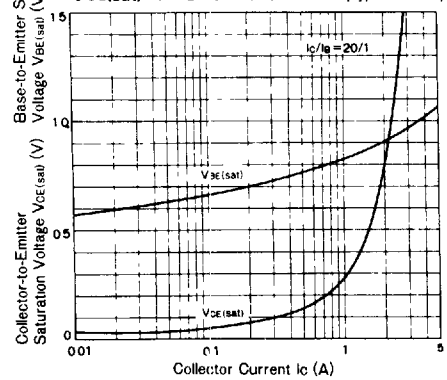
Temperature Characteristics



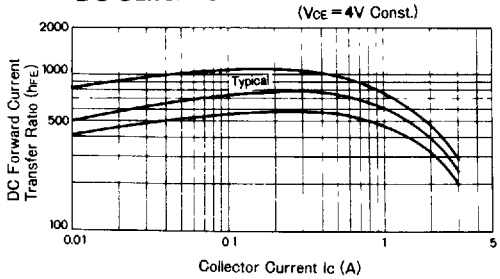
Maximum Areas For Safe Operation (ASO) (Single Pulse)



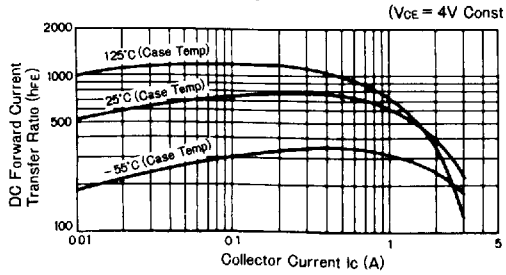
$V_{BE(sat)}$–Ic Characteristics (Typical Value)
$V_{CE(sat)}$–Ic Characteristics (Typical Value)



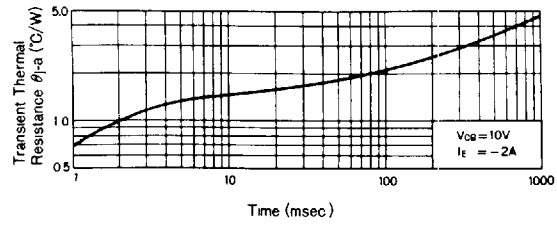
DC Current Gain Characteristics (VCE = 4V Const.)



DC Current Gain Temperature Characteristics (VCE = 4V Const)



Transient Thermal Resistance Characteristics



Outline Drawings/Accessories

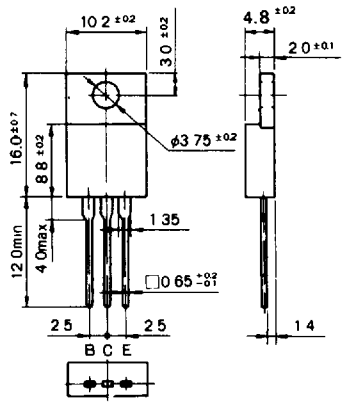
T-91-20

Outline Drawing

- Nonflamnability: UL94V-0 or epuivalent
- Unit: in mm

Outline Drawing 1

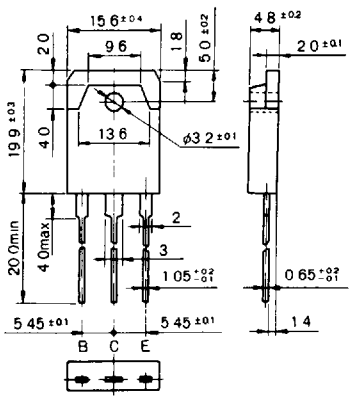
MT-25(TO220)



Weight: Approx. 2.6 g

Outline Drawing 2

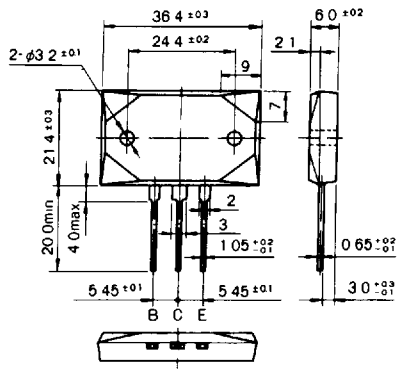
MT-100(TO3P)



Weight: Approx. 6.0 g

Outline Drawing 3

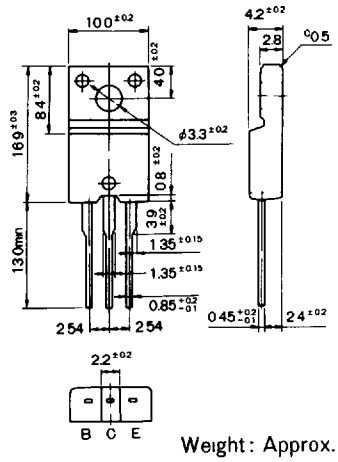
MT-200



Weight: Approx. 18.4 g

Outline Drawing 4

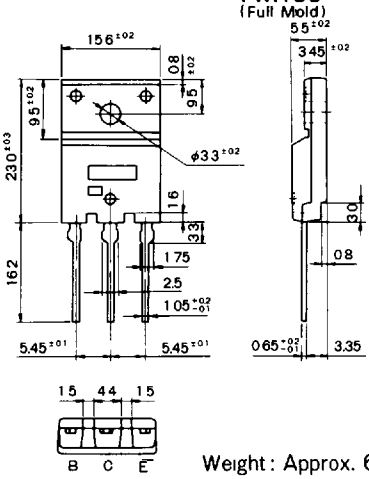
FM20
(Full Mold)



Weight: Approx. 2.0 g

Outline Drawing 5

FM100
(Full Mold)



Weight: Approx. 6.5 g

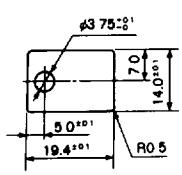
■ Accessories

☆Sanken Transistors do not include accessories. Accessories may be attached at a cost if requested.

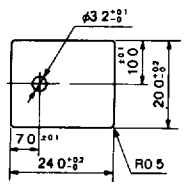
☆Sanken transistor case is a standard size, and can replace any generally sold product.

- Heatsink: Mica, with a thickness of 0.06 mm, +0.045 −0.005 allowance
- Insulation Bush for MT-25 (TO220)

Type Name: Molded (10) Mica



Type Name: Molded (14) Mica



Type Name: Molded (9) Mica