

2SC2810

Silicon NPN Triple Diffused Planar

☆High Voltage Switching Transistor

T-35-15

Application Example :
Switching Regulator and General Purpose

●Outline Drawing 1MT-25(TO220)

Absolute Maximum Ratings (Ta=25°C)

Symbol	2SC2810	Unit
V _{CB0}	500	V
V _{CEO}	400	V
V _{EB0}	10	V
I _C	7	A
I _B	2	A
P _C	50 (T _C = 25°C)	W
T _j	150	°C
T _{stg}	-55~+150	°C

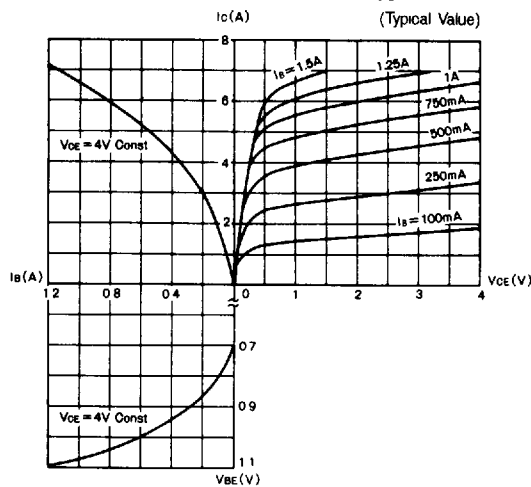
Electrical Characteristics (Ta=25°C)

Symbol	Conditions	2SC2810	Unit
I _{CB0}	V _{CB} =500V	100max	μA
I _{EB0}	V _{EB} =10V	100max	μA
V _{BRCEO}	I _C = 25mA	400min	V
h _{FE}	V _{CE} =4V, I _C =3A	10min	
V _{CE(sat)}	I _C = 3A, I _B =0.6A	0.5max	V
V _{BE(sat)}	I _C = 3A, I _B =0.6A	1.3max	V
f _T	V _{CE} =12V, I _E =-0.5A	18typ	MHz

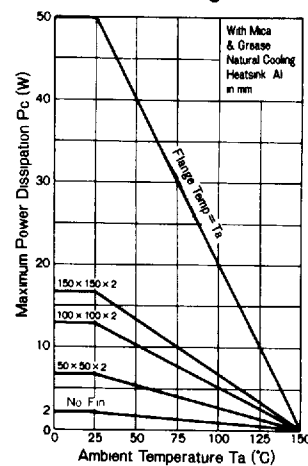
Typical Switching Characteristics (Common Emitter)

V _{CC} (V)	R _L (Ω)	I _C (A)	V _{B2} (V)	I _{B1} (A)	I _{B2} (A)	t _r (μs)	t _{stg} (μs)	t _f (μs)
100	33	3	-5	0.6	-0.6	0.7max	2.5max	0.7max

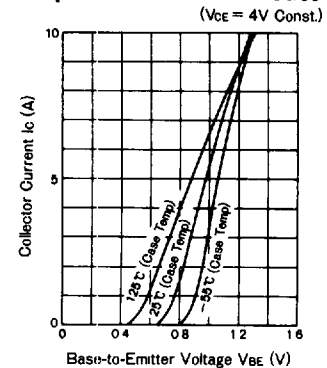
Common Emitter Characteristics



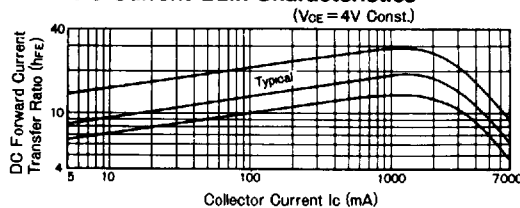
Power Derating



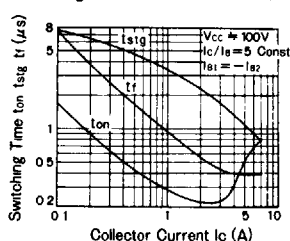
Temperature Characteristics



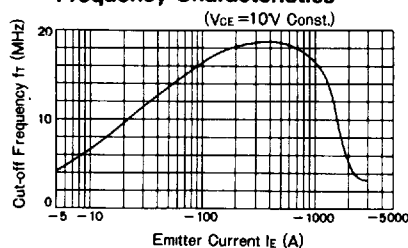
DC Current Gain Characteristics



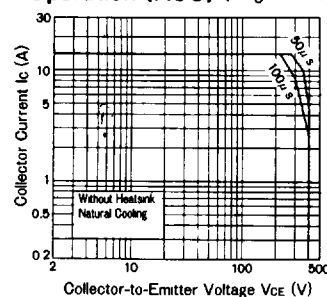
ton · tstg · tr - Ic Characteristics



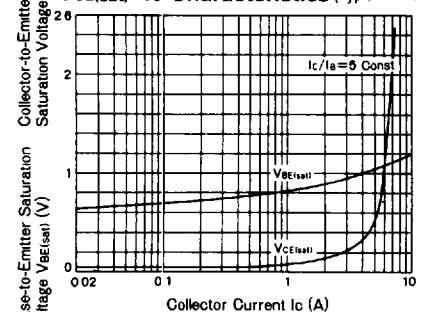
Frequency Characteristics



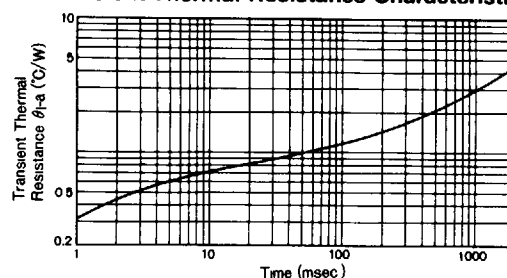
Maximum Areas For Safe Operation (ASO) (Single Pulse)



VBE(sat) - Ic Characteristics (Typical Value) VCE(sat) - Ic Characteristics (Typical Value)



Transient Thermal Resistance Characteristics



Outline Drawings/Accessories

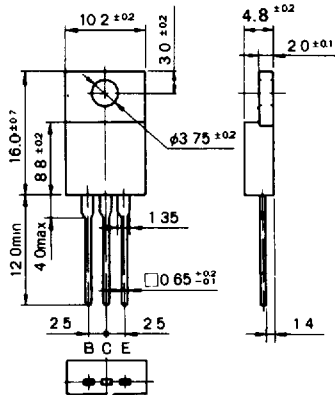
T-91-20

Outline Drawing

- Nonflammability: UL94V-0 or equivalent
- Unit: in mm

Outline Drawing 1

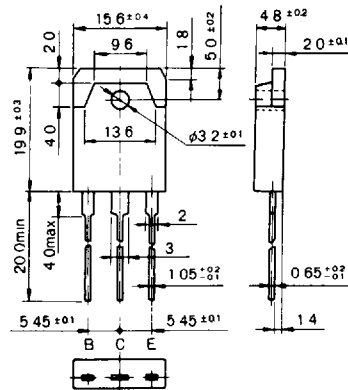
MT-25(T0220)



Weight: Approx. 2.6 g

Outline Drawing 2

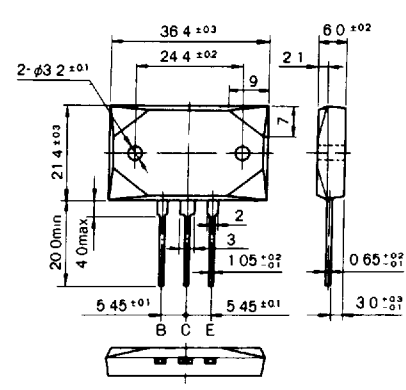
MT-100(T03P)



Weight: Approx. 6.0 g

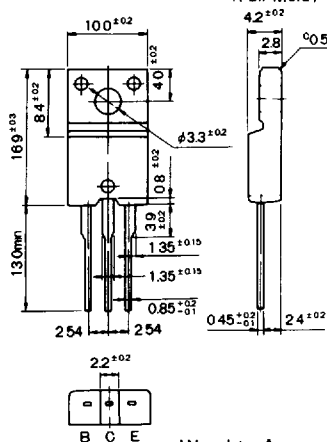
Outline Drawing 3

MT-200



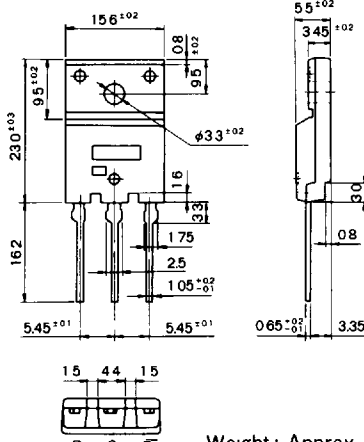
Weight: Approx. 18.4 g

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 (T0220)

Type Name: Molded (10) Mica Type Name: Molded (14) Mica Type Name: Molded (9) Mica

