

2SC4546

Silicon NPN Triple Diffused Planar Transistor (High Voltage and Ultra-high Speed Switching Transistor) Application : Switching Regulator, Lighting Inverter and General Purpose

■Absolute maximum ratings (Ta=25°C)

Symbol	Ratings	Unit
V _{CB0}	600	V
V _{CEO}	400	V
V _{EB0}	7	V
I _C	7(Pulse14)	A
I _B	2	A
P _C	30(T _C =25°C)	W
T _J	150	°C
T _{stg}	-55 to +150	°C

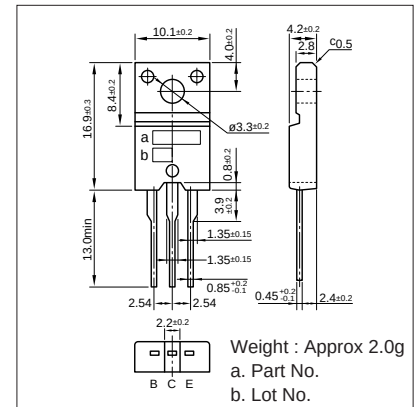
■Electrical Characteristics (Ta=25°C)

Symbol	Conditions	Ratings	Unit
I _{CB0}	V _{CB} =600V	100max	μA
I _{EB0}	V _{EB} =7V	100max	μA
V _{(BR)CEO}	I _C =25mA	400min	V
h _{FE}	V _{CE} =4V, I _C =3A	10to25	
V _{CE(sat)}	I _C =3A, I _B =0.6A	0.7max	V
V _{BE(sat)}	I _C =3A, I _B =0.6A	1.3max	V
f _r	V _{CE} =12V, I _E =-0.5A	10typ	MHz
COB	V _{CB} =10V, f=1MHz	55typ	pF

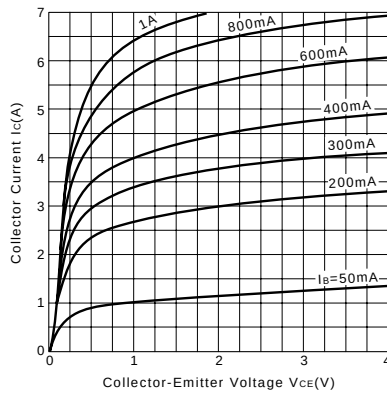
■Typical Switching Characteristics (Common Emitter)

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)
200	67	3	10	-5	0.6	-1.2	0.5max	2max	0.15max

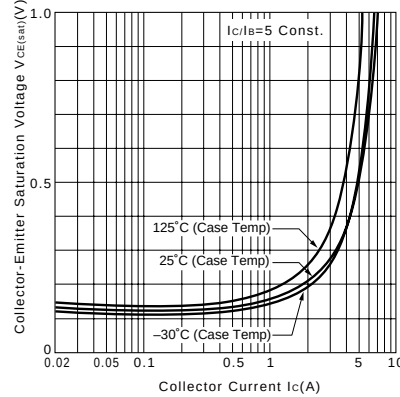
External Dimensions FM20(TO220F)



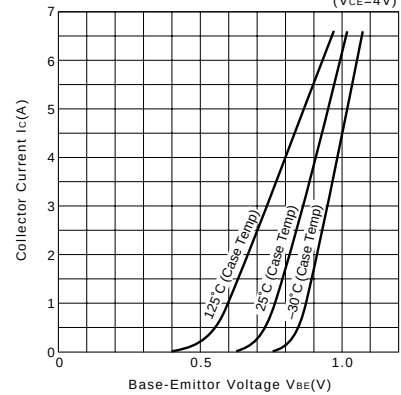
I_C-V_{CE} Characteristics (Typical)



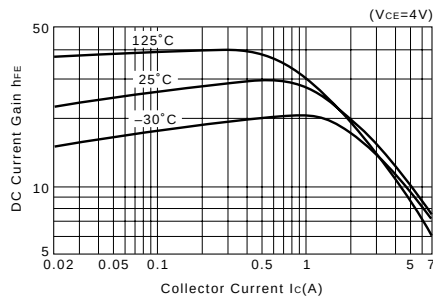
V_{CE(sat)}-I_C Characteristics (Typical)



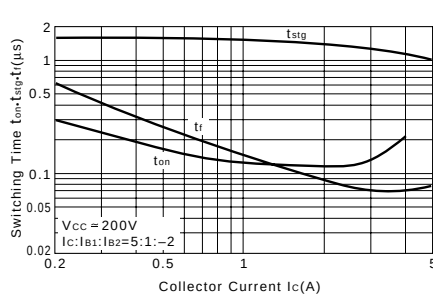
I_C-V_{BE} Temperature Characteristics (Typical)



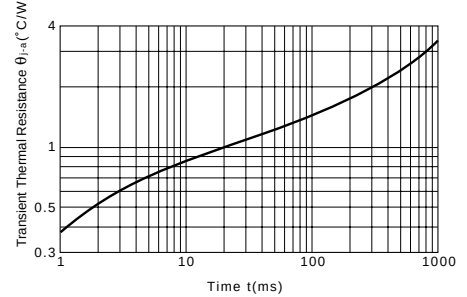
h_{FE}-I_C Temperature Characteristics (Typical)



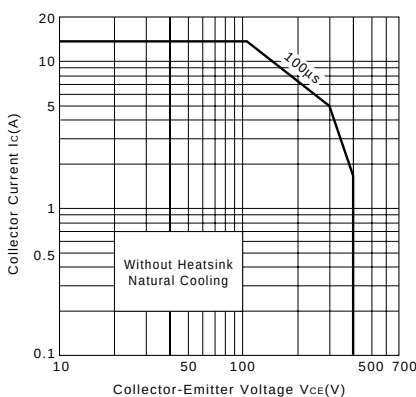
t_{on}•t_{stg}•t_f-I_C Characteristics (Typical)



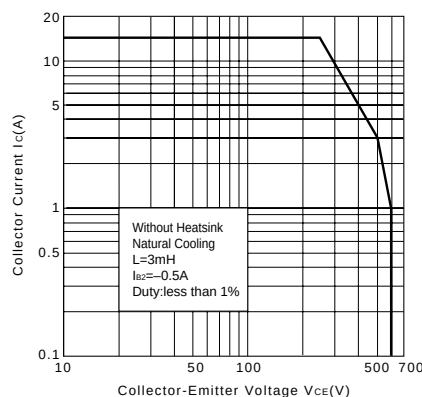
θ_{J-a}-t Characteristics



Safe Operating Area (Single Pulse)



Reverse Bias Safe Operating Area



P_C-T_a Derating

