



**THE DATASHEET OF
2SC4381**



2SC4381/4382

Silicon NPN Triple Diffused Planar Transistor (Complement to type 2SA1667/1668) Application : TV Vertical Output, Audio Output Driver and General Purpose

Absolute maximum ratings (Ta=25°C)

Symbol	Ratings		Unit
	2SC4381	2SC4382	
V _{CB0}	150	200	V
V _{CE0}	150	200	V
V _{EBO}	6		V
I _C	2		A
I _B	1		A
P _C	25(T _C =25°C)		W
T _J	150		°C
T _{stg}	-55 to +150		°C

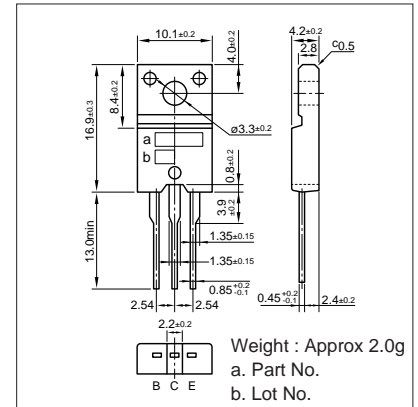
Electrical Characteristics (Ta=25°C)

Symbol	Conditions	Ratings		Unit
		2SC4381	2SC4382	
I _{CB0}	V _{CB} =	150	200	μA
I _{EBO}	V _{EB} =6V	10max		μA
V _{(BR)CEO}	I _C =25mA	150min	200min	V
h _{FE}	V _{CE} =10V, I _C =0.7A	60min		
V _{CE(sat)}	I _C =0.7A, I _B =0.07A	1.0max		V
f _T	V _{CE} =12V, I _E =-0.2A	15typ		MHz
COB	V _{CB} =10V, f=1MHz	35typ		pF

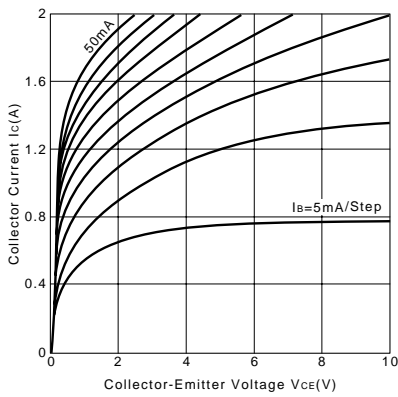
Typical Switching Characteristics (Common Emitter)

V _{CC} (V)	R _L (Ω)	I _C (A)	V _{BB1} (V)	V _{BB2} (V)	I _{B1} (mA)	I _{B2} (mA)	t _{on} (μs)	t _{stg} (μs)	t _f (μs)
20	20	1	10	-5	100	-100	1.0typ	3.0typ	1.5typ

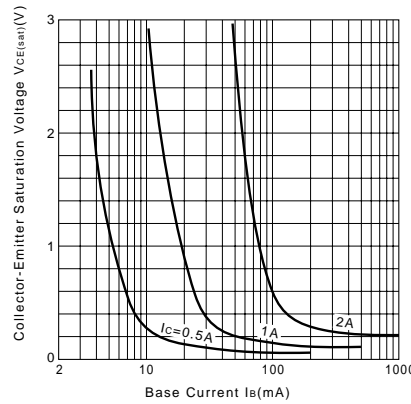
External Dimensions FM20(TO220F)



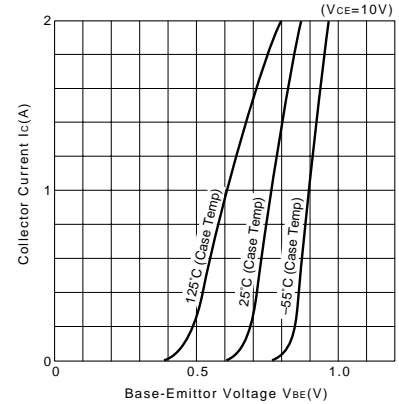
I_C-V_{CE} Characteristics (Typical)



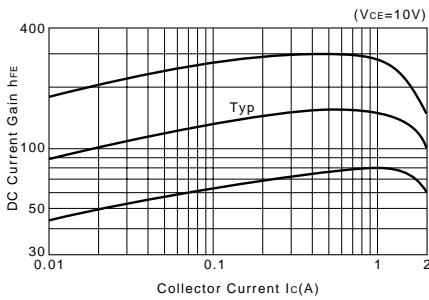
V_{CE(sat)}-I_B Characteristics (Typical)



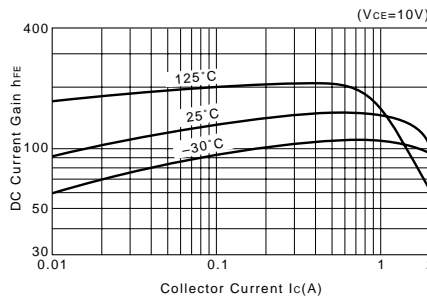
I_C-V_{BE} Temperature Characteristics (Typical)



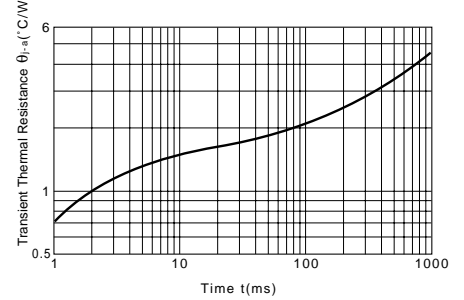
h_{FE}-I_C Characteristics (Typical)



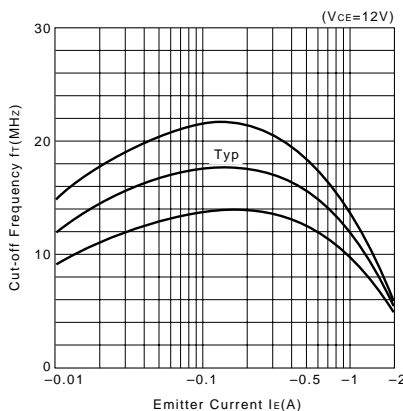
h_{FE}-I_C Temperature Characteristics (Typical)



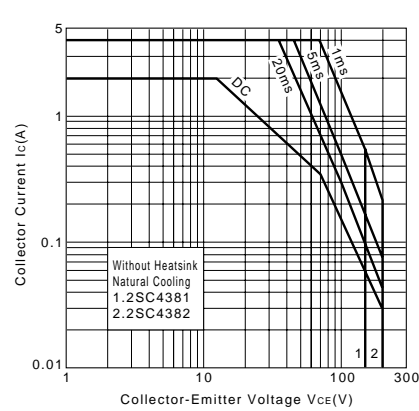
θ_{j-a}-t Characteristics



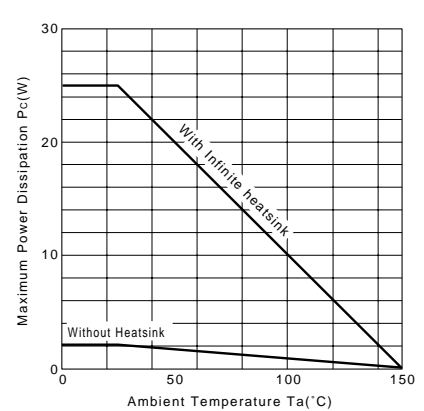
f_T-I_E Characteristics (Typical)



Safe Operating Area (Single Pulse)





P_C-T_a Derating



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