

2SC5124

Silicon NPN Triple Diffused Planar Transistor (High Voltage Switching Transistor)

Application : Display Horizontal Deflection Output, Switching Regulator and General Purpose

Absolute maximum ratings (Ta=25°C)

Symbol	2SC5124	Unit
V _{CB0}	1500	V
V _{CEO}	800	V
V _{EB0}	6	V
I _c	10(Pulse20)	A
I _B	5	A
P _C	100(Tc=25°C)	W
T _J	150	°C
T _{stg}	-55 to +150	°C

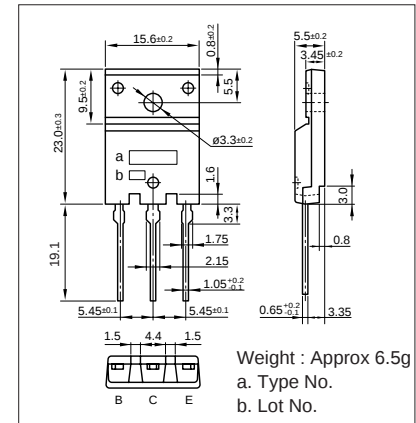
Electrical Characteristics (Ta=25°C)

Symbol	Conditions	2SC5124	Unit
I _{CB01}	V _{CB} =1200V	100max	μA
I _{CB02}	V _{CB} =1500V	1max	mA
I _{EB0}	V _{EB} =6V	100max	μA
V _{(BR)CEO}	I _c =10mA	800min	V
h _{FE1}	V _{CE} =5V, I _c =1A	8min	
h _{FE2}	V _{CE} =5V, I _c =8A	4to9	
V _{CE(sat)}	I _c =8A, I _B =2A	5max	V
V _{BE(sat)}	I _c =8A, I _B =2A	1.5max	V
f _r	V _{CE} =12V, I _E =-1A	3typ	MHz
C _{OB}	V _{CB} =10V, f=1MHz	130typ	pF

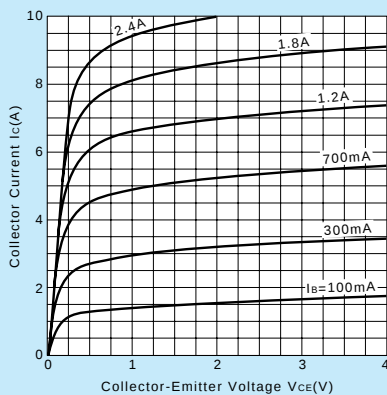
Typical Switching Characteristics (Common Emitter)

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	33.3	6	10	-5	1.2	-2.4	0.1typ	4.0typ	0.2typ

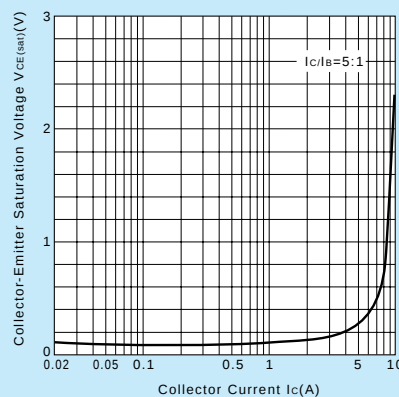
External Dimensions FM100(TO3PF)



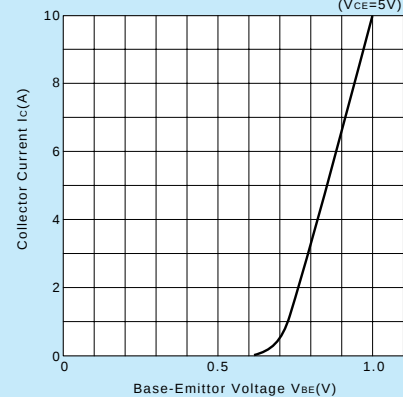
I_c-V_{CE} Characteristics (Typical)



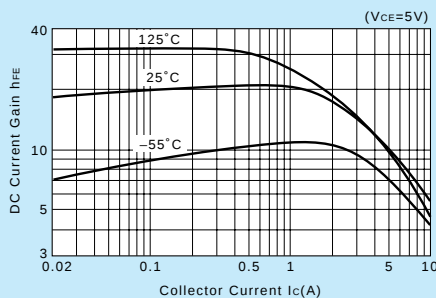
V_{CE(sat)}-I_c Characteristics (Typical)



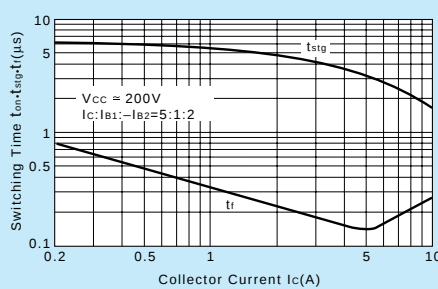
I_c-V_{BE} Temperature Characteristics (Typical)



h_{FE}-I_c Characteristics (Typical)

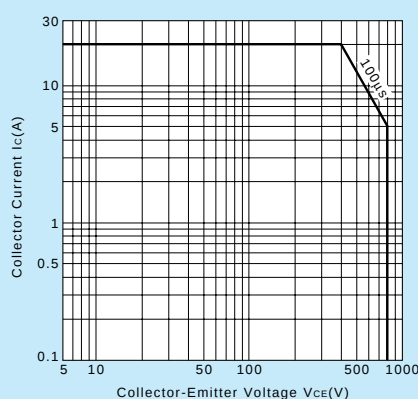


t_{stg}•t_r-I_c Characteristics (Typical)

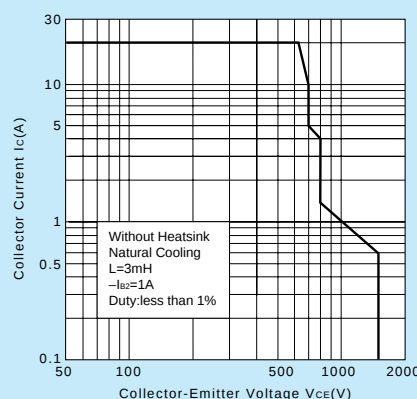


θ_{j-a}-t Characteristics

Safe Operating Area (Single Pulse)



Reverse Bias Safe Operating Area



P_C-T_a Derating

