2SC4517/4517A

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

Application : Switching Regulator and General Purpose

Absolute maximum ratings (Ta=25°C)

Symbol	2SC4517	2SC4517A	Unit
V_{CBO}	900	1000	V
V_{CEO}	550		V
V_{EBO}	7		V
I_C	3(Pulse6)		A
I_B	1.5		A
P_C	30(Tc=25°C)		W
Tj	150		°C
Tstg	–55 to +150		°C

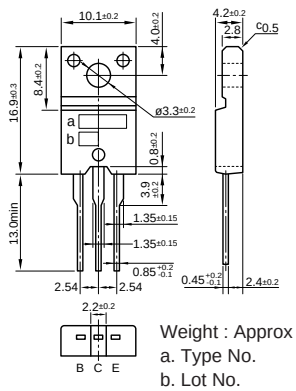
Electrical Characteristics (Ta=25°C)

Symbol	Conditions	2SC4517	2SC4517A	Unit
I_{CBO}	V_{CB}=800V	100max		μA
I_{EBO}	V_{EB}=7V	100max		μA
$V_{(BR)CEO}$	I_C=10mA	550min		V
h_{FE}	V_{CE}=4V, I_C=1A	10to30		
$V_{CE(sat)}$	I_C=1A, I_B=0.2A	0.5max		V
$V_{BE(sat)}$	I_C=1A, I_B=0.2A	1.2max		V
f_T	V_{CE}=12V, I_E=–0.25A	6typ		MHz
C_{OB}	V_{CB}=10V, f=1MHz	35typ		pF

Typical Switching Characteristics (Common Emitter)

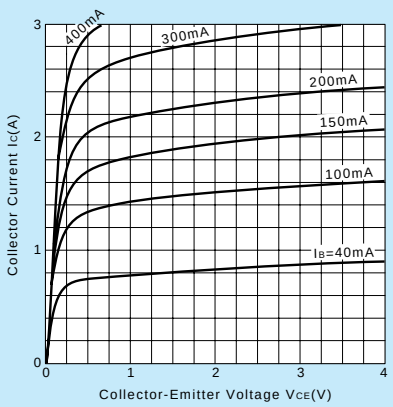
V_{CC} (V)	R_L (Ω)	I_C (A)	V_{BB1} (V)	V_{BB2} (V)	I_{B1} (A)	I_{B2} (A)	ton (μs)	tstg (μs)	tf (μs)
250	250	1	10	–5	0.15	–0.45	0.7max	4max	0.5max

External Dimensions FM20(TO220F)

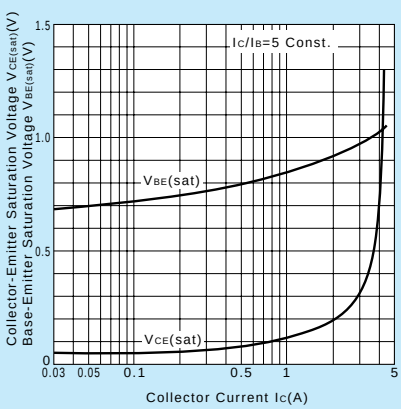


Weight : Approx 2.0g
a. Type No.
b. Lot No.

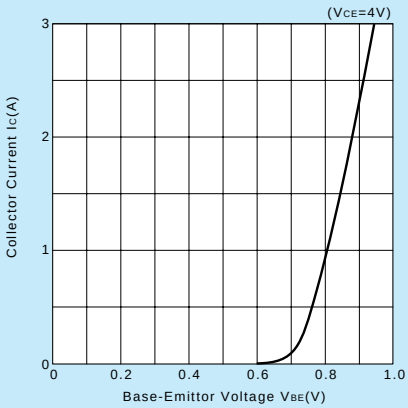
I_C–V_{CE} Characteristics (Typical)



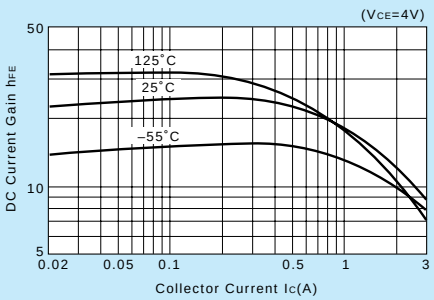
$V_{CE(sat)}$,$V_{BE(sat)}$–I_C Temperature Characteristics (Typical)



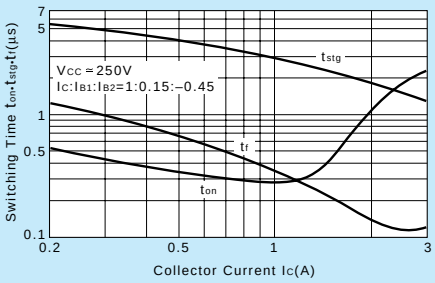
I_C–V_{BE} Temperature Characteristics (Typical)



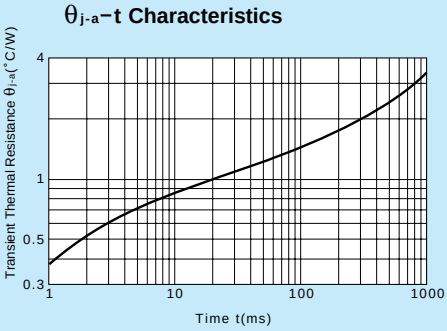
h_{FE}–I_C Temperature Characteristics (Typical)



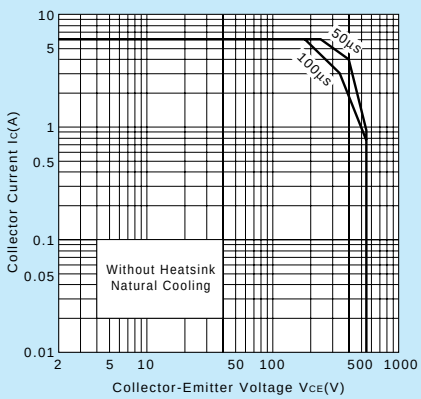
t_{on}•t_{stg}•t_f–I_C Characteristics (Typical)



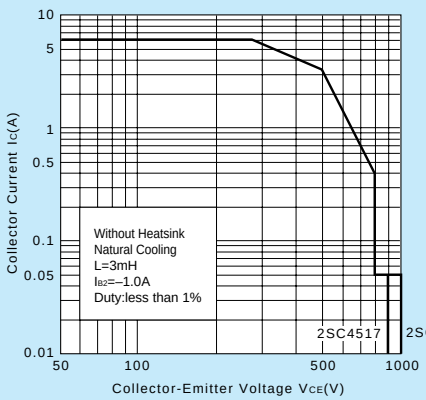
$\theta_{j\text{-}a}$–t Characteristics



Safe Operating Area (Single Pulse)



Reverse Bias Safe Operating Area



Pc–Ta Derating