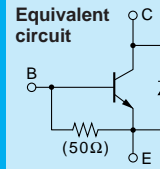


Built-in Damper Diode

2SC5003



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

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

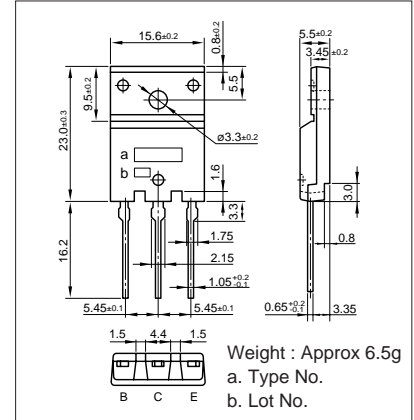
Absolute maximum ratings (Ta=25°C)

Symbol	2SC5003	Unit
V _{CB0}	1500	V
V _{CE0}	800	V
V _{EB0}	6	V
I _c	7(Pulse 14)	A
I _B	3.5	A
P _c	80(T _c =25°C)	W
T _j	150	°C
T _{stg}	-55 to +150	°C

Electrical Characteristics (Ta=25°C)

Symbol	Conditions	2SC5003	Unit
I _{CB01}	V _{CB} =1200V	100max	μA
I _{CB02}	V _{CB} =1500V	1max	mA
I _{CE0}	V _{CE} =800V	1max	mA
V _{EB0}	I _{EB} =300mA	6min	V
h _{FE1}	V _{CE} =5V, I _c =1A	8min	
h _{FE2}	V _{CE} =5V, I _c =5A	4 to 9	
V _{CE(sat)}	I _c =5A, I _B =1.2A	5max	V
V _{BE(sat)}	I _c =5A, I _B =1.2A	1.5max	V
V _{FEC}	I _{EC} =7A	2.0max	V
f _r	V _{CE} =12V, I _e =-0.5A	4typ	MHZ
COB	V _{CB} =10V, f=1MHZ	100typ	pF

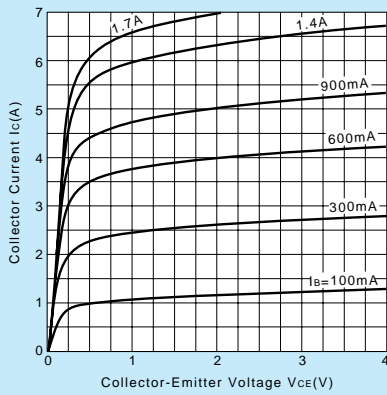
External Dimensions FM100(TO3PF)



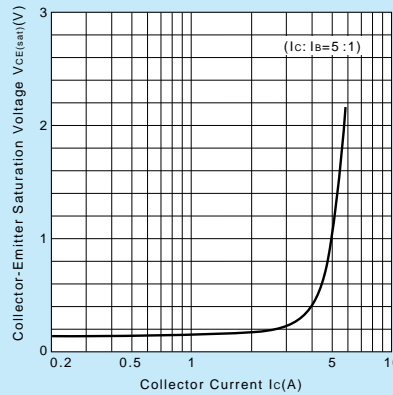
Typical Switching Characteristics (Common Emitter)

V _{CC} (V)	R _L (Ω)	I _c (A)	V _{BB1} (V)	V _{BB2} (V)	I _{B1} (A)	I _{B2} (A)	t _{stg} (μs)	t _r (μs)
200	50	4	10	-5	0.8	-1.6	4.0max	0.2max

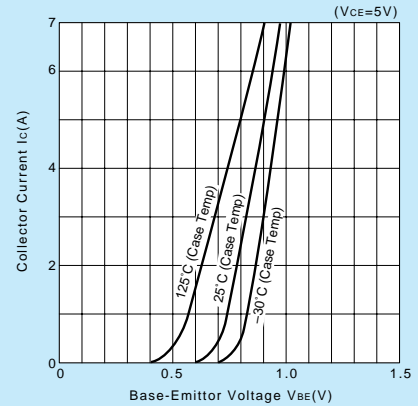
I_c-V_{CE} Characteristics (Typical)



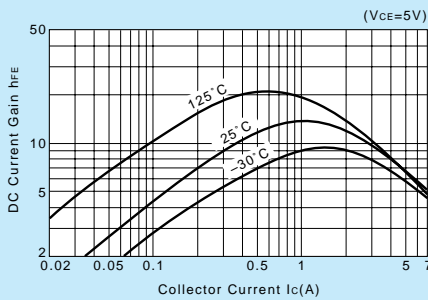
V_{CE(sat)}-I_c Characteristics (Typical)



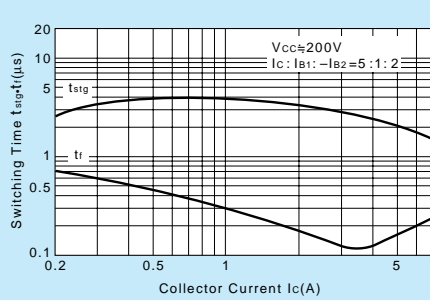
I_c-V_{BE} Temperature Characteristics (Typical)



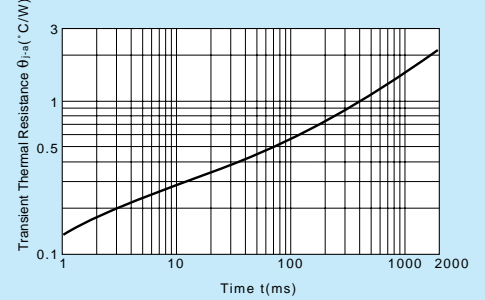
h_{FE}-I_c Characteristics (Typical)



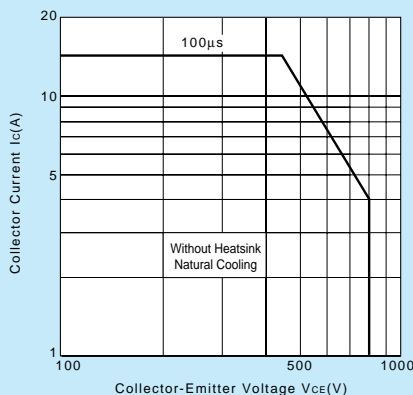
t_{stg}*t_r-I_c Characteristics (Typical)



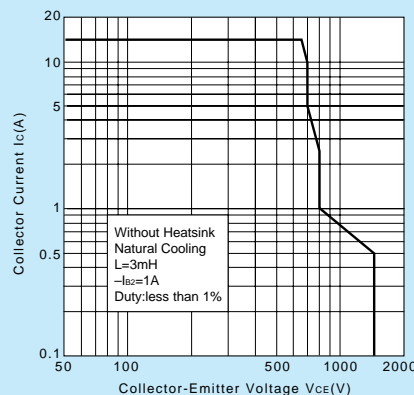
θ_{j-a}-t Characteristics



Safe Operating Area (Single Pulse)



Reverse Bias Safe Operating Area



P_c-T_a Derating

