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With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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2SC4153

Silicon NPN Triple Diffused Planar Transistor (Switching Transistor)

Application : Humidifier, DC-DC Converter, and General Purpose

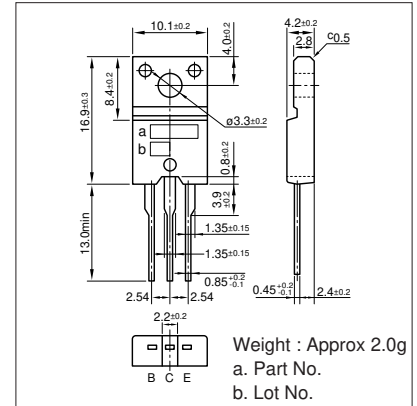
Absolute maximum ratings (Ta=25°C)

Symbol	Ratings	Unit
V _{CB0}	200	V
V _{CEO}	120	V
V _{EB0}	8	V
I _C	7(Pulse14)	A
I _B	3	A
P _C	30(Tc=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} =200V	100max	μA
I _{EB0}	V _{EB} =8V	100max	μA
V _{(BR)CEO}	I _C =50mA	120min	V
h _{FE}	V _{CE} =4V, I _C =3A	70to220	
V _{CE(sat)}	I _C =3A, I _B =0.3A	0.5max	V
V _{BE(sat)}	I _C =3A, I _B =0.3A	1.2max	V
f _r	V _{CE} =12V, I _E =-0.5A	30typ	MHz
C _{OB}	V _{CB} =10V, f=1MHz	110typ	pF

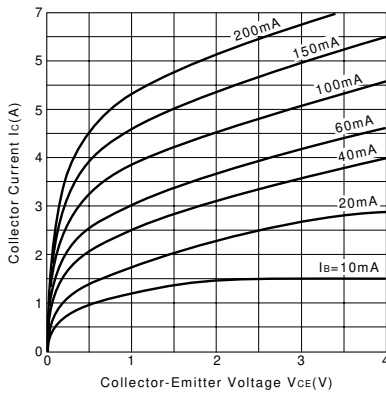
External Dimensions FM20(TO220F)



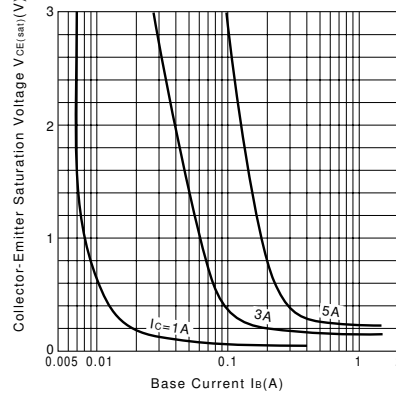
Typical Switching Characteristics (Common Emitter)

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)
50	16.7	3	10	-5	0.3	-0.6	0.5max	3max	0.5max

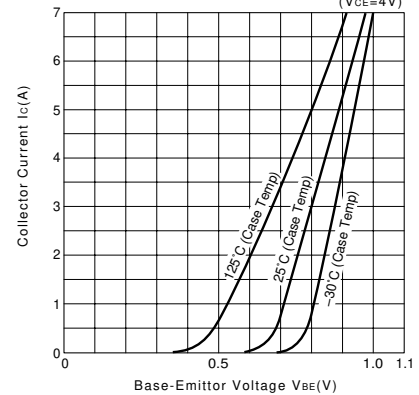
I_C-V_{CE} Characteristics (Typical)



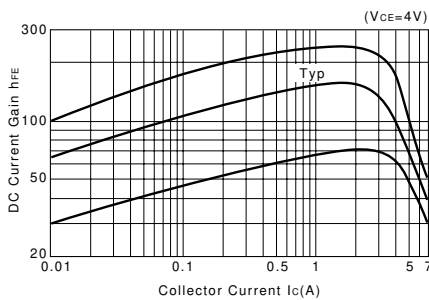
V_{CE(sat)}-I_B Characteristics (Typical)



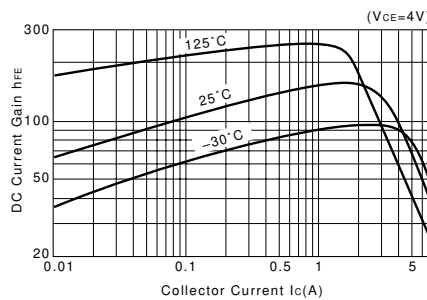
I_C-V_{BE} Temperature Characteristics (Typical)



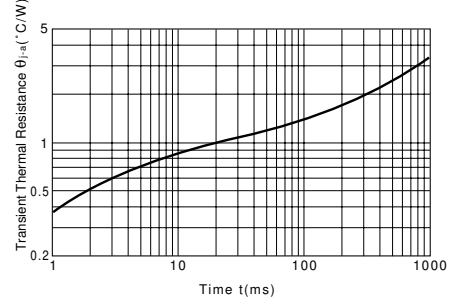
h_{FE}-I_C Characteristics (Typical)



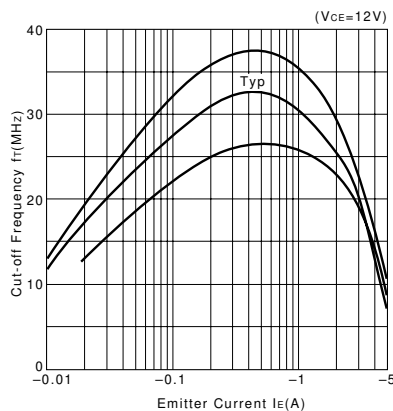
h_{FE}-I_C Temperature Characteristics (Typical)



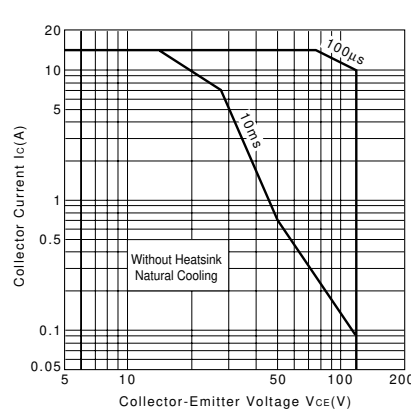
θ_{JA}-t Characteristics



f_T-I_E Characteristics (Typical)



Safe Operating Area (Single Pulse)



P_C-T_a Derating

