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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.

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2SC4140

Silicon NPN Triple Diffused Planar Transistor (High Voltage and High Speed Switching Transistor) Application : Switching Regulator and General Purpose

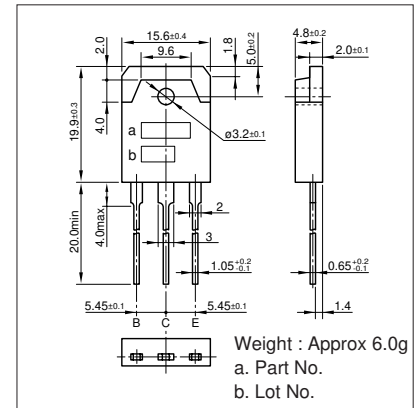
Absolute maximum ratings (Ta=25°C)

Symbol	Ratings	Unit
V _{CB0}	500	V
V _{CEO}	400	V
V _{EB0}	10	V
I _C	18(Pulse36)	A
I _B	6	A
P _C	130(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} =500V	100max	μA
I _{EB0}	V _{EB} =10V	100max	μA
V _{(BR)CEO}	I _C =25mA	400min	V
h _{FE}	V _{CE} =4V, I _C =10A	10 to 30	
V _{CE(sat)}	I _C =10A, I _B =2A	0.5max	V
V _{BE(sat)}	I _C =10A, I _B =2A	1.3max	V
f _r	V _{CE} =12V, I _E =-2.0A	10typ	MHz
COB	V _{CB} =10V, f=1MHz	165typ	pF

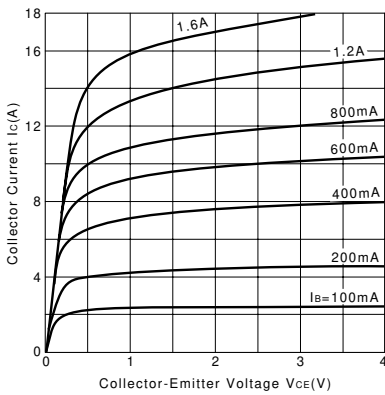
External Dimensions MT-100(TO3P)



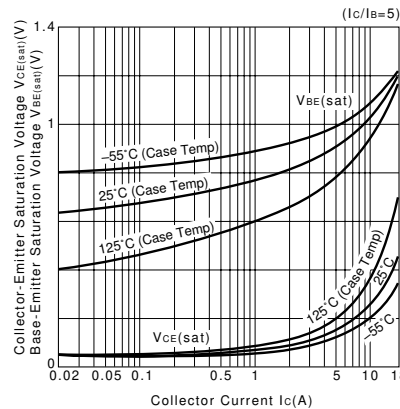
Typical Switching Characteristics (Common Emitter)

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	20	10	10	-5	1	-2	1max	3max	0.5max

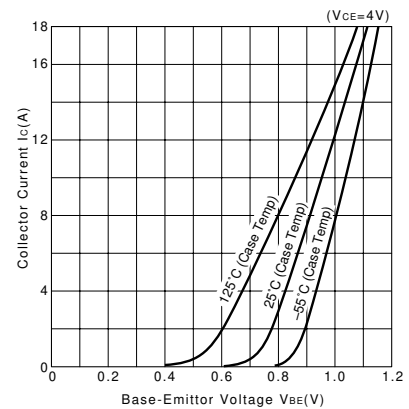
I_C-V_{CE} Characteristics (Typical)



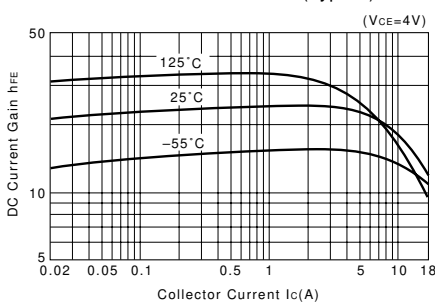
V_{CE(sat)}, V_{BE(sat)}-I_C Temperature Characteristics (Typical)



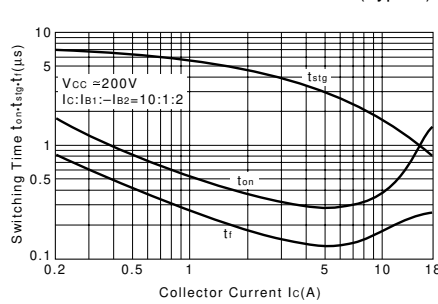
I_C-V_{BE} Temperature Characteristics (Typical)



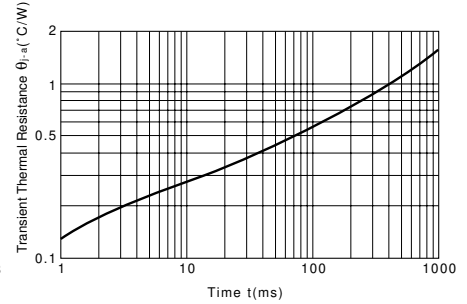
h_{FE}-I_C Characteristics (Typical)



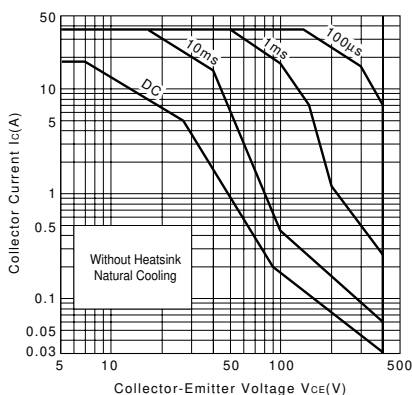
t_{on}·t_{stg}·t_f-I_C Characteristics (Typical)



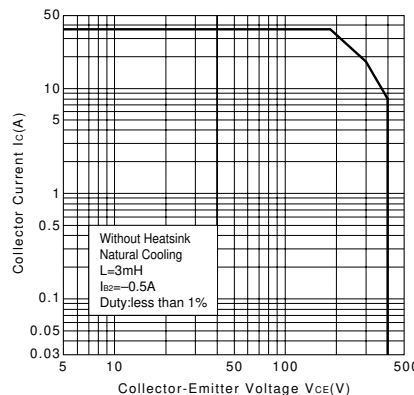
θ_{J-a}-t Characteristics



Safe Operating Area (Single Pulse)



Reverse Bias Safe Operating Area



P_C-T_a Derating

