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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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# 2SC4706

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

Application : Switching Regulator and General Purpose

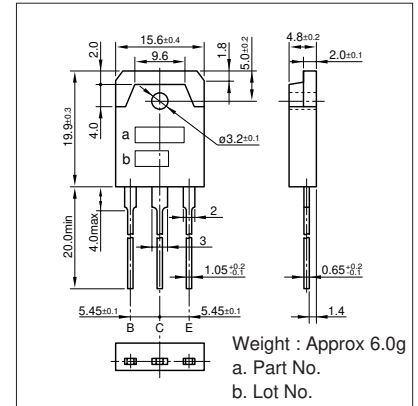
**Absolute maximum ratings** (Ta=25°C)

Symbol	Ratings	Unit
V <sub>CB0</sub>	900	V
V <sub>CE0</sub>	600	V
V <sub>EB0</sub>	7	V
I <sub>C</sub>	14(Pulse28)	A
I <sub>B</sub>	7	A
P <sub>C</sub>	130(T <sub>C</sub> =25°C)	W
T <sub>J</sub>	150	°C
T <sub>stg</sub>	-55to+150	°C

**Electrical Characteristics** (Ta=25°C)

Symbol	Conditions	Ratings	Unit
I <sub>CB0</sub>	V <sub>CB</sub> =800V	100max	μA
I <sub>EB0</sub>	V <sub>EB</sub> =7V	100max	μA
V <sub>(BR)CEO</sub>	I <sub>C</sub> =10mA	600min	V
h <sub>FE</sub>	V <sub>CE</sub> =4V, I <sub>C</sub> =7A	10 to 25	
V <sub>CE(sat)</sub>	I <sub>C</sub> =7A, I <sub>B</sub> =1.4A	0.5max	V
V <sub>BE(sat)</sub>	I <sub>C</sub> =7A, I <sub>B</sub> =1.4A	1.2max	V
f <sub>r</sub>	V <sub>CE</sub> =12V, I <sub>E</sub> =-1.5A	6typ	MHz
COB	V <sub>CB</sub> =10V, f=1MHz	160typ	pF

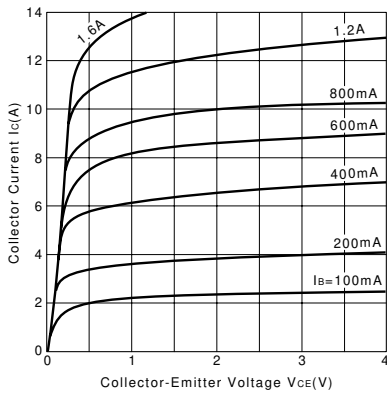
**External Dimensions MT-100(TO3P)**



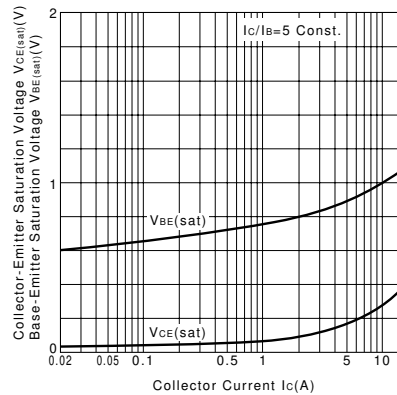
**Typical Switching Characteristics (Common Emitter)**

V <sub>CC</sub> (V)	R <sub>L</sub> (Ω)	I <sub>C</sub> (A)	V <sub>BB1</sub> (V)	V <sub>BB2</sub> (V)	I <sub>B1</sub> (A)	I <sub>B2</sub> (A)	t <sub>on</sub> (μs)	t <sub>stg</sub> (μs)	t <sub>f</sub> (μs)
250	35.7	7	10	-5	1.05	-3.5	1max	5max	0.7max

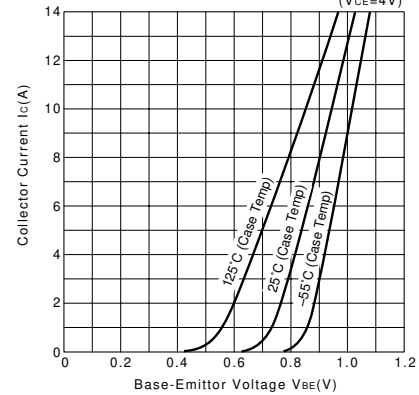
**I<sub>C</sub>-V<sub>CE</sub> Characteristics (Typical)**



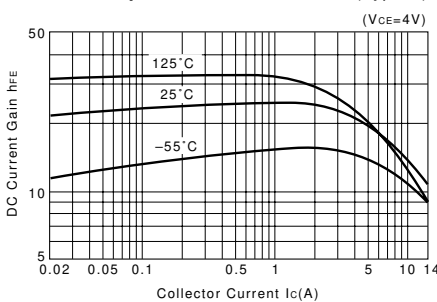
**V<sub>CE(sat)</sub>, V<sub>BE(sat)</sub>-I<sub>C</sub> Temperature Characteristics (Typical)**



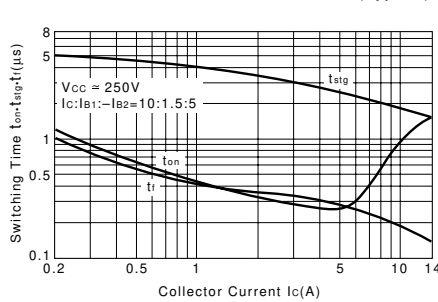
**I<sub>C</sub>-V<sub>BE</sub> Temperature Characteristics (Typical)**



**h<sub>FE</sub>-I<sub>C</sub> Temperature Characteristics (Typical)**

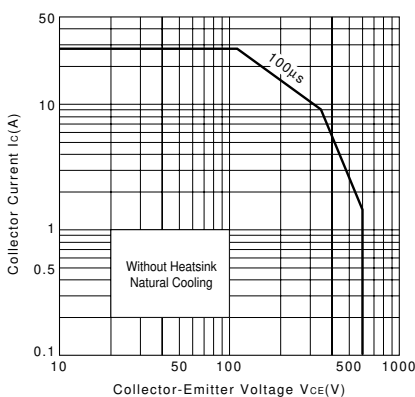


**t<sub>on</sub>•t<sub>stg</sub>•t<sub>f</sub>-I<sub>C</sub> Characteristics (Typical)**

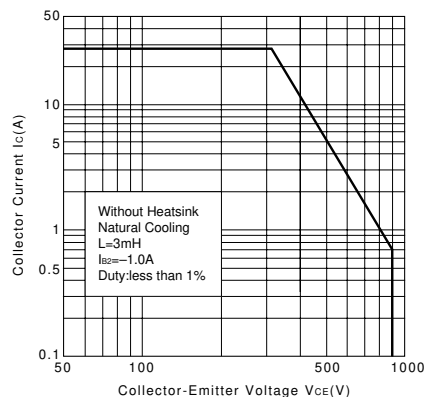


**θ<sub>j-a</sub>-t Characteristics**

**Safe Operating Area (Single Pulse)**



**Reverse Bias Safe Operating Area**



**P<sub>C</sub>-T<sub>a</sub> Derating**

