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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!



## Contact us

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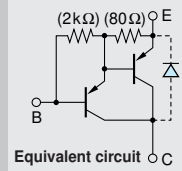
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Darlington

# 2SB1420



Silicon PNP Epitaxial Planar Transistor

Application : Chopper Regulator, DC Motor Driver and General Purpose

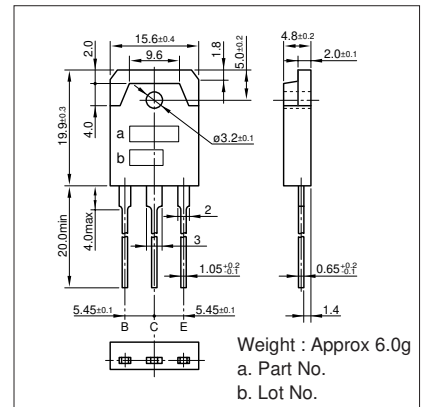
■Absolute maximum ratings (Ta=25°C)

Symbol	Ratings	Unit
V <sub>CB0</sub>	-120	V
V <sub>CEO</sub>	-120	V
V <sub>EBO</sub>	-6	V
I <sub>C</sub>	-16(Pulse-26)	A
I <sub>B</sub>	-1	A
P <sub>C</sub>	80(T <sub>C</sub> =25°C)	W
T <sub>J</sub>	150	°C
T <sub>stg</sub>	-55 to +150	°C

■Electrical Characteristics (Ta=25°C)

Symbol	Conditions	Ratings	Unit
I <sub>CB0</sub>	V <sub>CB</sub> =-120V	-10max	μA
I <sub>EBO</sub>	V <sub>EB</sub> =-6V	-10max	mA
V <sub>(BR)CEO</sub>	I <sub>C</sub> =-10mA	-120min	V
h <sub>FE</sub>	V <sub>CE</sub> =-4V, I <sub>C</sub> =-8A	2000min	
V <sub>CE(sat)</sub>	I <sub>C</sub> =-8A, I <sub>B</sub> =-16mA	-1.5max	V
V <sub>BE(sat)</sub>	I <sub>C</sub> =-8A, I <sub>B</sub> =-16mA	-2.5max	V
f <sub>r</sub>	V <sub>CE</sub> =-12V, I <sub>E</sub> =1A	50typ	MHz
COB	V <sub>CB</sub> =-10V, f=1MHz	350typ	pF

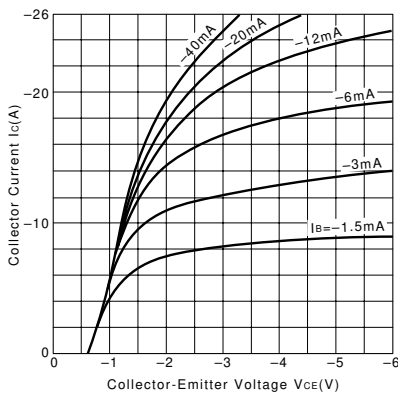
External Dimensions MT-100(TO3P)



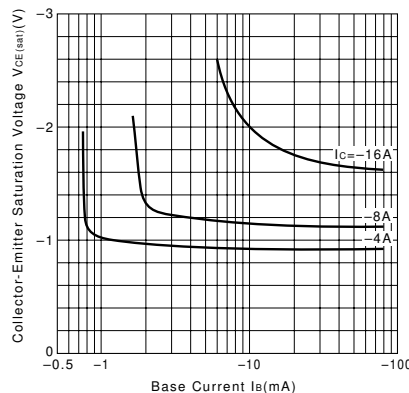
■Typical Switching Characteristics (Common Emitter)

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> (mA)	I <sub>B2</sub> (mA)	t <sub>on</sub> (μs)	t <sub>stg</sub> (μs)	t <sub>f</sub> (μs)
-24	2	-12	-10	5	-24	24	1.0typ	3.0typ	1.0typ

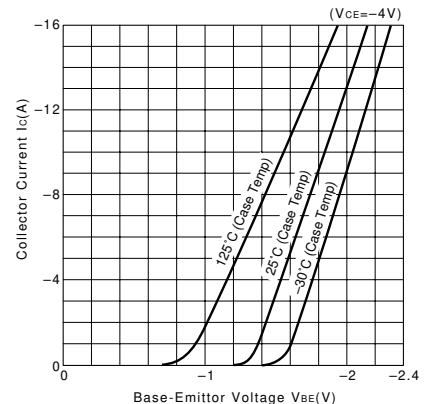
I<sub>C</sub>-V<sub>CE</sub> Characteristics (Typical)



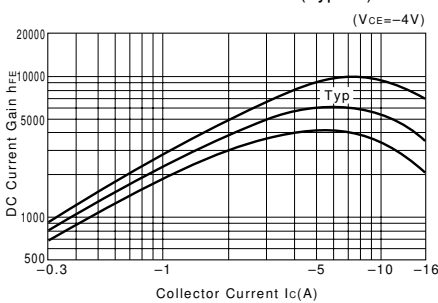
V<sub>CE(sat)</sub>-I<sub>B</sub> Characteristics (Typical)



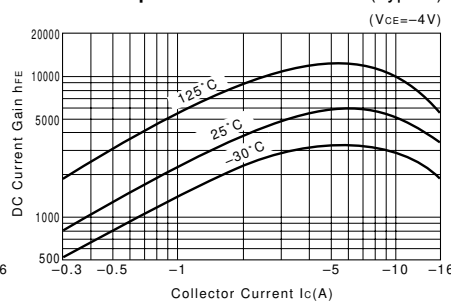
I<sub>C</sub>-V<sub>BE</sub> Temperature Characteristics (Typical)



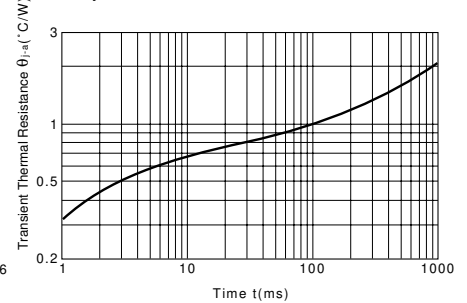
h<sub>FE</sub>-I<sub>C</sub> Characteristics (Typical)



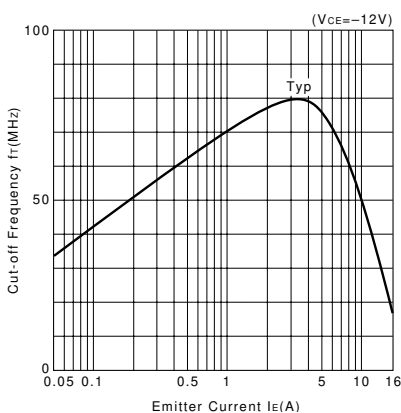
h<sub>FE</sub>-I<sub>C</sub> Temperature Characteristics (Typical)



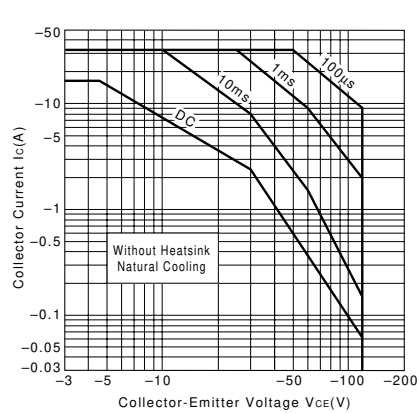
θ<sub>j-a</sub>-t Characteristics



f<sub>T</sub>-I<sub>E</sub> Characteristics (Typical)



Safe Operating Area (Single Pulse)



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

