



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

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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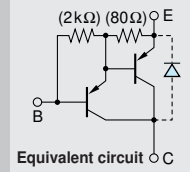
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Darlington

2SB1383



Silicon PNP Epitaxial Planar Transistor (Complement to type 2SD2083)

Application : Chopper Regulator, DC Motor Driver and General Purpose

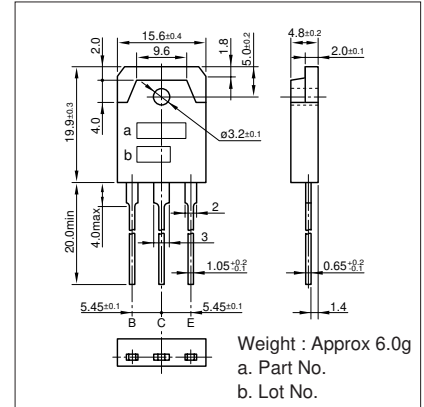
■ Absolute maximum ratings (Ta=25°C)

Symbol	Ratings	Unit
V _{CB0}	-120	V
V _{CEO}	-120	V
V _{EBO}	-6	V
I _C	-25(Pulse-40)	A
I _B	-2	A
P _C	120(T _C =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} =-120V	-10max	μA
I _{EBO}	V _{EB} =-6V	-10max	mA
V _{(BR)CEO}	I _C =-25mA	-120min	V
h _{FE}	V _{CE} =-4V, I _C =-12A	2000min	
V _{CE(sat)}	I _C =-12A, I _B =-24mA	-1.8max	V
V _{BE(sat)}	I _C =-12A, I _B =-24mA	-2.5max	V
f _r	V _{CE} =-12V, I _E =1A	50typ	MHz
COB	V _{CB} =-10V, f=1MHz	230typ	pF

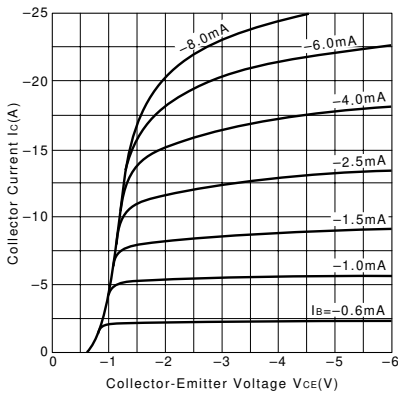
External Dimensions MT-100(TO3P)



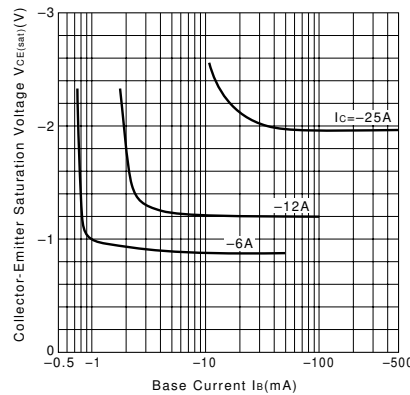
■ Typical Switching Characteristics (Common Emitter)

V _{CC} (V)	R _L (Ω)	I _C (A)	V _{BB1} (V)	V _{BB2} (V)	I _{B1} (mA)	I _{B2} (mA)	t _{on} (μs)	t _{stg} (μs)	t _f (μs)
-24	2	-12	-10	5	-24	24	1.0typ	3.0typ	1.0typ

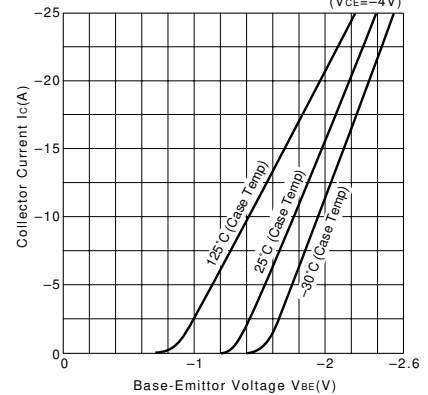
I_C-V_{CE} Characteristics (Typical)



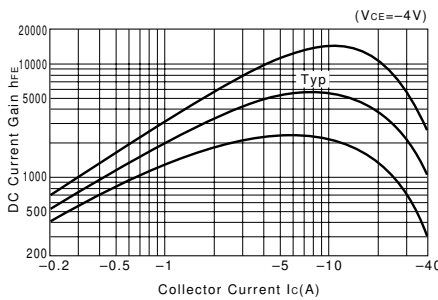
V_{CE(sat)}-I_B Characteristics (Typical)



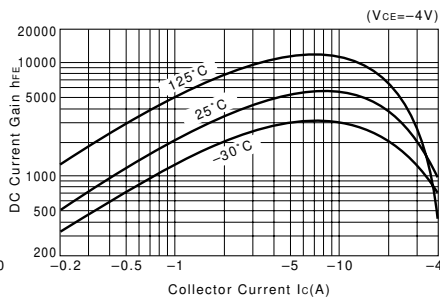
I_C-V_{BE} Temperature Characteristics (Typical)



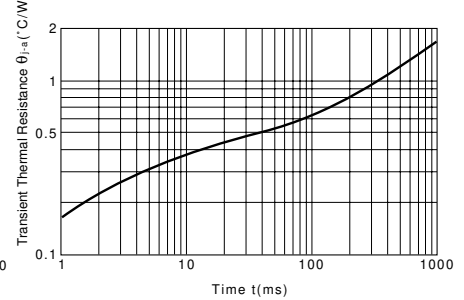
h_{FE}-I_C Characteristics (Typical)



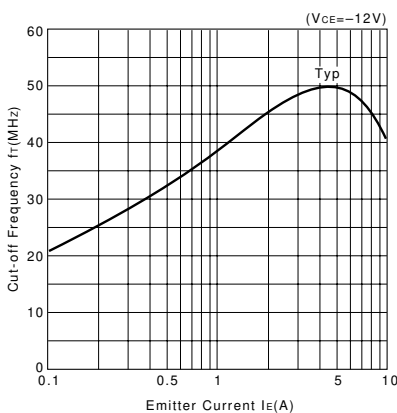
h_{FE}-I_C Temperature Characteristics (Typical)



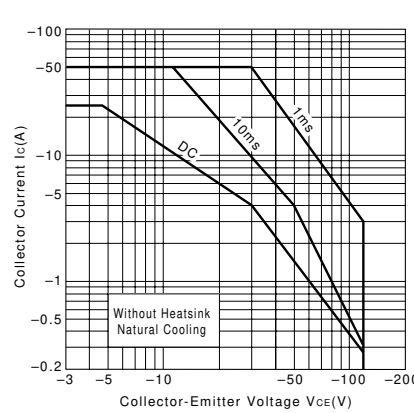
θ_{j-a}-t Characteristics



f_r-I_E Characteristics (Typical)



Safe Operating Area (Single Pulse)



P_C-T_a Derating

