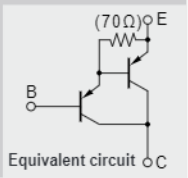
Darlington

2SB1560



Silicon PNP Epitaxial Planar Transistor (Complement to type 2SD2390)

Application : Audio, Series Regulator and General Purpose

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

Symbol	Ratings	Unit
V_{CBO}	−160	V
V_{CEO}	−150	V
V_{EBO}	−5	V
I_C	−10	A
I_B	−1	A
P_C	100(Tc=25°C)	W
Tj	150	°C
Tstg	−55 to +150	°C

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

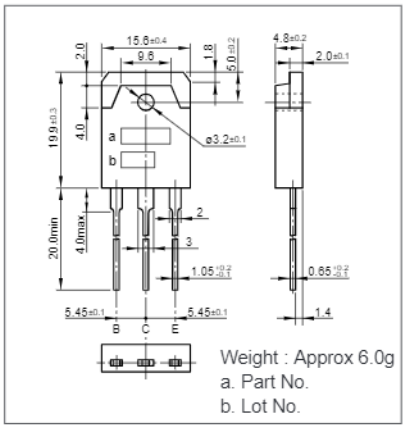
Symbol	Conditions	Ratings	Unit
I_{CBO}	V_{CB}=−160V	−100max	∝A
I_{EBO}	V_{EB}=−5V	−100max	∝A
$V_{(BR)CEO}$	I_C=−30mA	−150min	V
h_{FE}	V_{CE}=−4V, I_C=−7A	5000min*	
$V_{CE(sat)}$	I_C=−7A, I_B=−7mA	−2.5max	V
$V_{BE(sat)}$	I_C=−7A, I_B=−7mA	−3.0max	V
fr	V_{CE}=−12V, I_E=2A	50typ	MHz
C_{OB}	V_{CB}=−10V, f=1MHz	230typ	pF

*h_{FE} Rank O(5000 to 12000), P(6500 to 20000), Y(15000 to 30000)

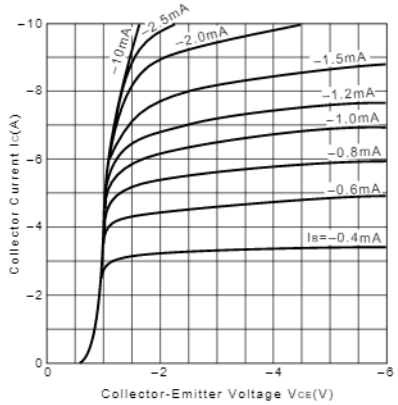
■**Typical Switching Characteristics (Common Emitter)**

V_{CC} (V)	R_L (Ω)	I_C (A)	V_{BB1} (V)	V_{BB2} (V)	I_{B1} (mA)	I_{B2} (mA)	ton (∝s)	tstg (∝s)	tf (∝s)
−70	10	−7	−10	5	−7	7	0.8typ	3.0typ	1.2typ

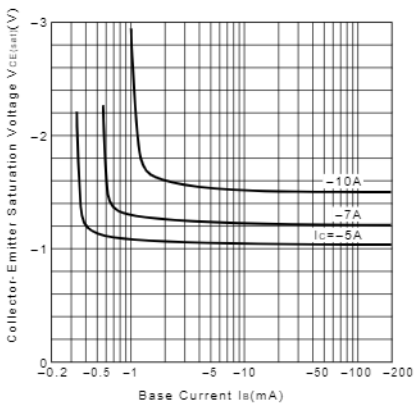
External Dimensions MT-100(TO3P)



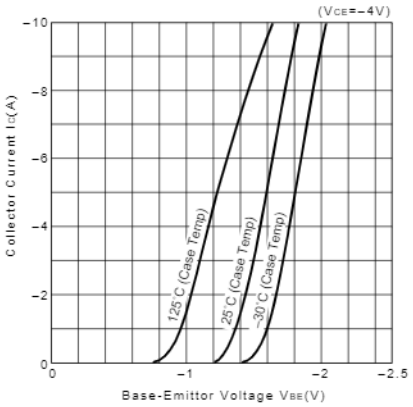
I_C−V_{CE} Characteristics (Typical)



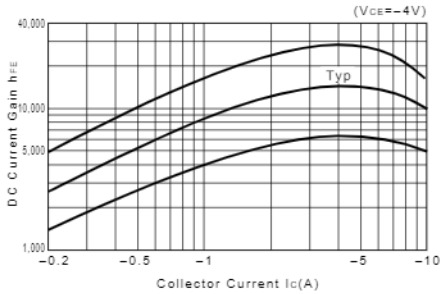
$V_{CE(sat)}$−I_B Characteristics (Typical)



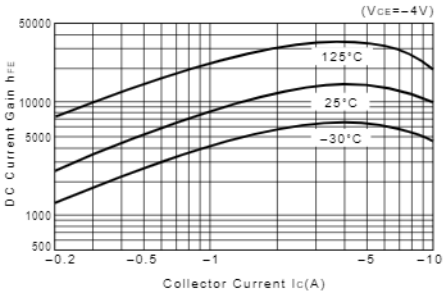
I_C−V_{BE} Temperature Characteristics (Typical)



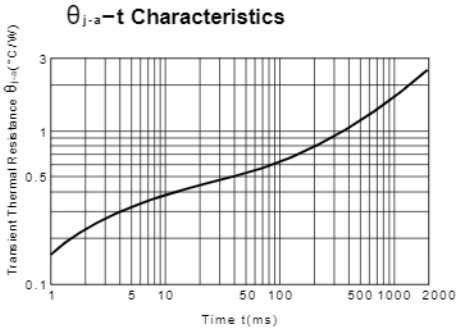
h_{FE}−I_C Characteristics (Typical)



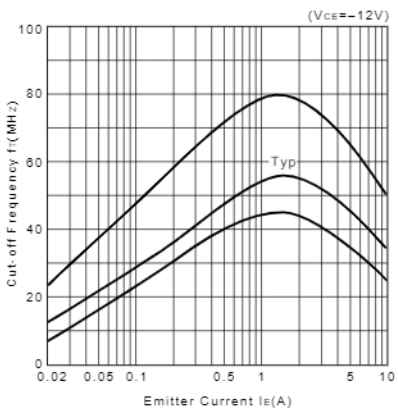
h_{FE}−I_C Temperature Characteristics (Typical)



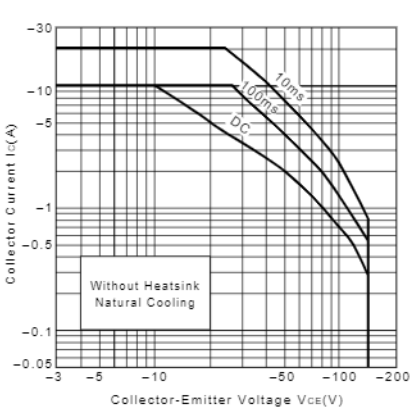
$\theta_{j\text{-}a}$−t Characteristics



f_T−I_E Characteristics (Typical)



Safe Operating Area (Single Pulse)



Pc−Ta Derating

