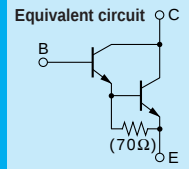


Darlington

2SD2389



Silicon NPN Triple Diffused Planar Transistor (Complement to type 2SB1559)

Application : Audio, Series Regulator and General Purpose

Absolute maximum ratings (Ta=25°C)

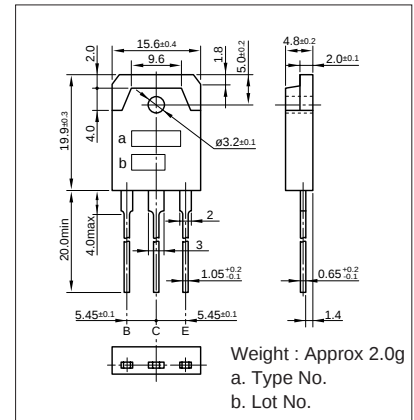
Symbol	2SD2389	Unit
V _{CB0}	160	V
V _{CE0}	150	V
V _{EB0}	5	V
I _C	8	A
I _B	1	A
P _C	80(Tc=25°C)	W
T _j	150	°C
Tstg	-55 to +150	°C

Electrical Characteristics (Ta=25°C)

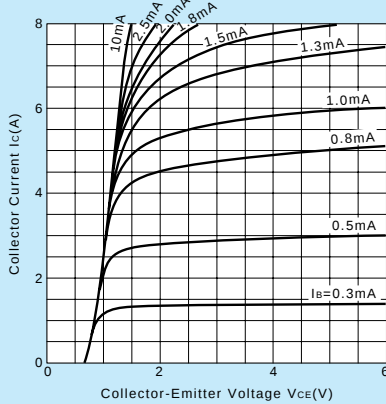
Symbol	Conditions	2SD2389	Unit
I _{CB0}	V _{CB} =160V	100max	μA
I _{EB0}	V _{EB} =5V	100max	μA
V _{(BR)CEO}	I _C =30mA	150min	V
h _{FE}	V _{CE} =4V, I _C =6A	5000min*	
V _{CE(sat)}	I _C =6A, I _B =6mA	2.5max	V
V _{BE(sat)}	I _C =6A, I _B =6mA	3.0max	V
f _r	V _{CE} =12V, I _E =-1A	80typ	MHz
C _{OB}	V _{CB} =10V, f=1MHz	85typ	pF

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

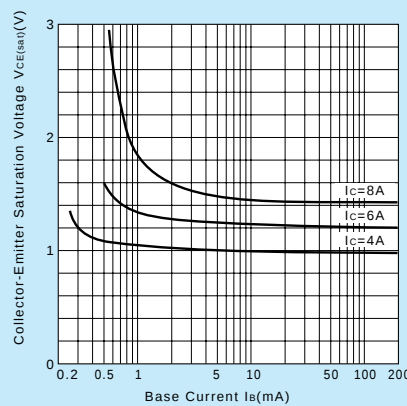
External Dimensions MT-100(TO3P)



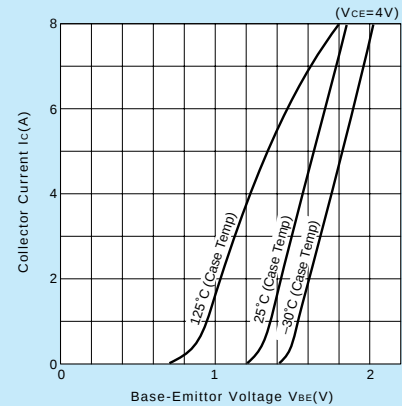
I_C-V_{CE} Characteristics (Typical)



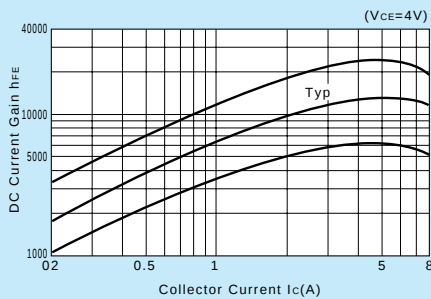
V_{CE(sat)}-I_B Characteristics (Typical)



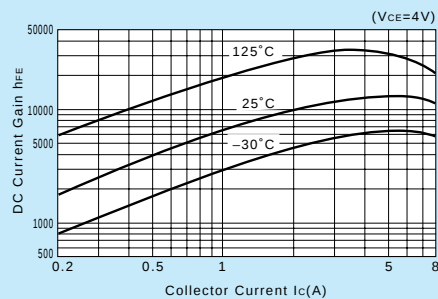
I_C-V_{BE} Temperature Characteristics (Typical)



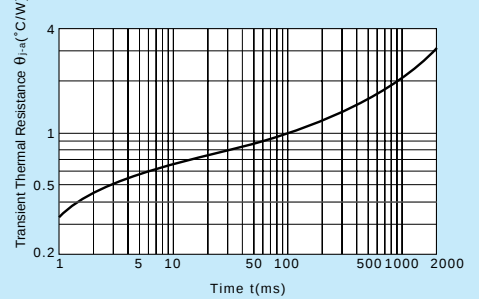
h_{FE}-I_C Characteristics (Typical)



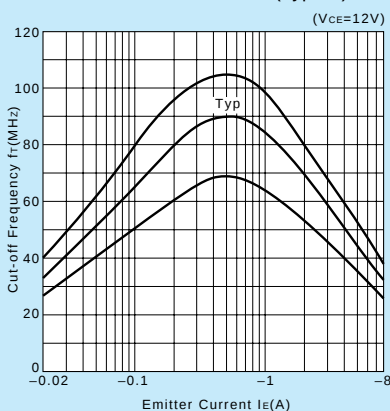
h_{FE}-I_C Temperature Characteristics (Typical)



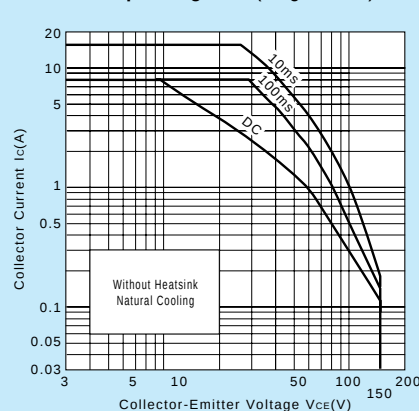
θ_{j-a}-t Characteristics



f_T-I_E Characteristics (Typical)



Safe Operating Area (Single Pulse)



P_C-T_a Derating

