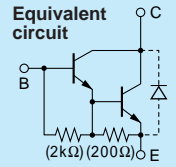


Darlington

2SD2016

Equivalent circuit



Silicon NPN Triple Diffused Planar Transistor

Application : Igniter, Relay and General Purpose

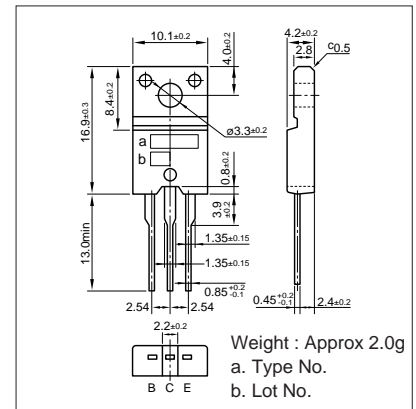
Absolute maximum ratings (Ta=25°C)

Symbol	2SD2016	Unit
V _{CB0}	200	V
V _{CE0}	200	V
V _{EB0}	6	V
I _C	3	A
I _B	0.5	A
P _C	25(T _C =25°C)	W
T _J	150	°C
T _{stg}	-55 to +150	°C

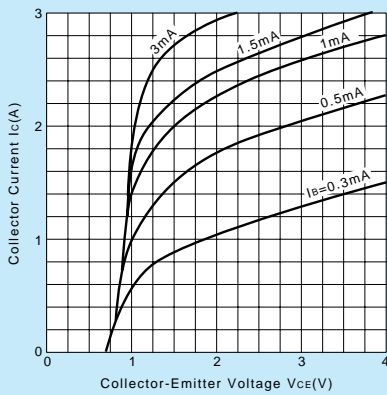
Electrical Characteristics (Ta=25°C)

Symbol	Conditions	2SD2016	Unit
I _{CB0}	V _{CB} =200V	10max	μA
I _{EB0}	V _{EB} =6V	10max	mA
V _{(BR)CEO}	I _C =10mA	200min	V
h _{FE}	V _{CE} =4V, I _C =1A	1000 to 15000	
V _{CE(sat)}	I _C =1A, I _B =1.5mA	1.5max	V
V _{BE(sat)}	I _C =1A, I _B =1.5mA	2.0max	V
f _T	V _{CE} =12V, I _E =-0.1A	90typ	MHz
COB	V _{CB} =10V, f=1MHz	40typ	pF

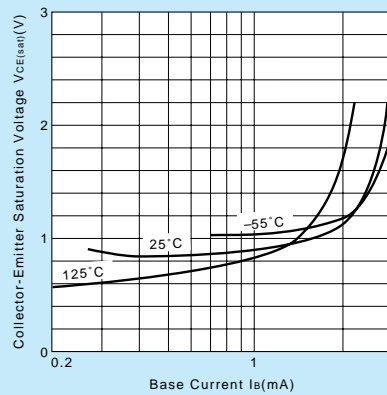
External Dimensions FM20(TO220F)



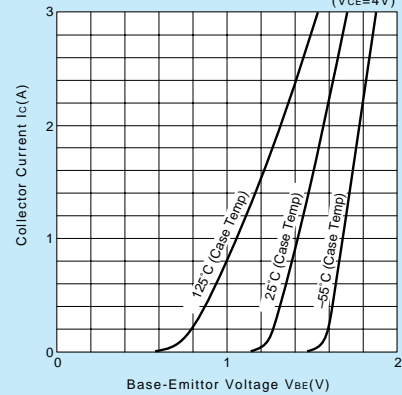
I_C-V_{CE} Characteristics (Typical)



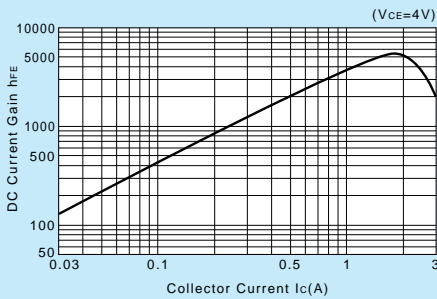
V_{CE(sat)}-I_B Characteristics (Typical)



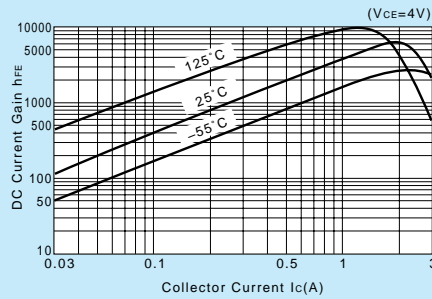
I_C-V_{BE} Temperature Characteristics (Typical)



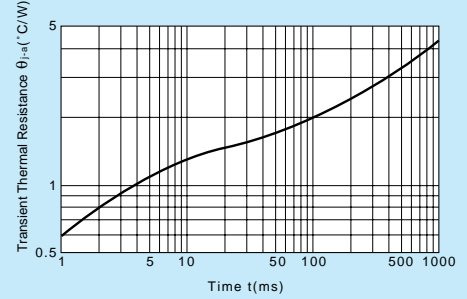
h_{FE}-I_C Characteristics (Typical)



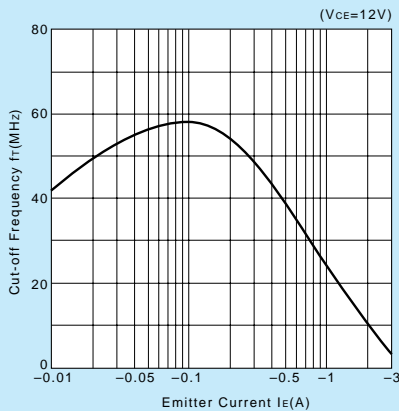
h_{FE}-I_C Temperature Characteristics (Typical)



θ_{J-a}-t Characteristics



f_T-I_E Characteristics (Typical)



Safe Operating Area (Single Pulse)

P_C-T_a Derating

