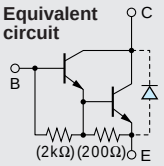
Darlington 2SD2016

Equivalent circuit



Silicon NPN Triple Diffused Planar Transistor

Application : Igniter, Relay and General Purpose

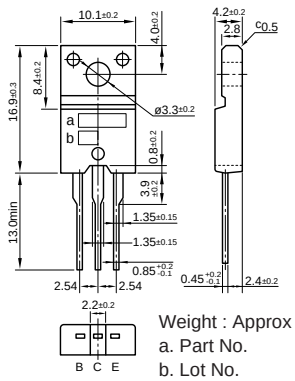
■Absolute maximum ratings (Ta=25°C)

Symbol	Ratings	Unit
V_{CBO}	200	V
V_{CEO}	200	V
V_{EBO}	6	V
I_C	3	A
I_B	0.5	A
P_C	25(Tc=25°C)	W
Tj	150	°C
Tstg	–55 to +150	°C

■Electrical Characteristics (Ta=25°C)

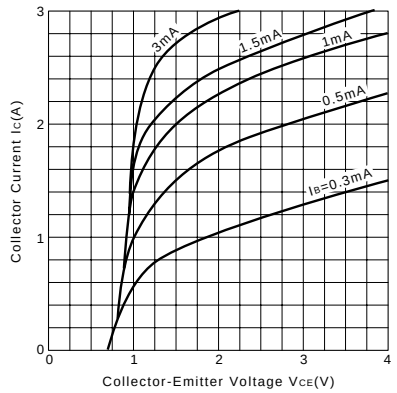
Symbol	Conditions	Ratings	Unit
I_{CBO}	V_{CB}=200V	10max	μA
I_{EBO}	V_{EB}=6V	10max	mA
$V_{(BR)CEO}$	I_C=10mA	200min	V
h_{FE}	V_{CE}=4V, I_C=1A	1000to15000	
$V_{CE(sat)}$	I_C=1A, I_B=1.5mA	1.5max	V
$V_{BE(sat)}$	I_C=1A, I_B=1.5mA	2.0max	V
f_T	V_{CE}=12V, I_E=–0.1A	90typ	MHz
C_{OB}	V_{CB}=10V, f=1MHz	40typ	pF

External Dimensions FM20(TO220F)

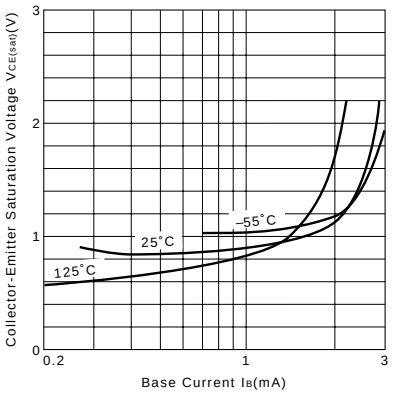


Weight : Approx 2.0g
a. Part No.
b. Lot No.

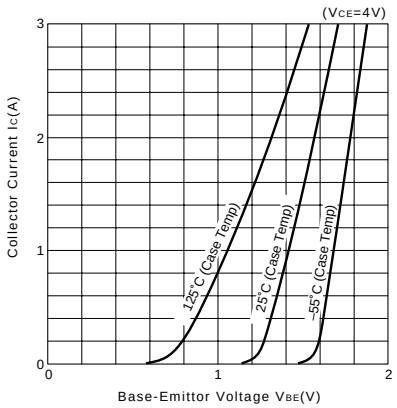
I_C–V_{CE} Characteristics (Typical)



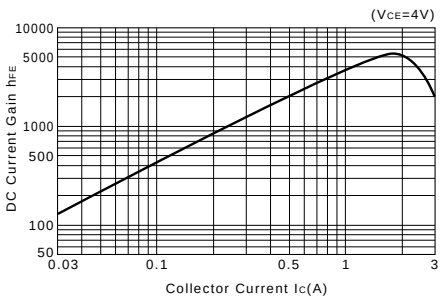
$V_{CE(sat)}$–I_B Characteristics (Typical)



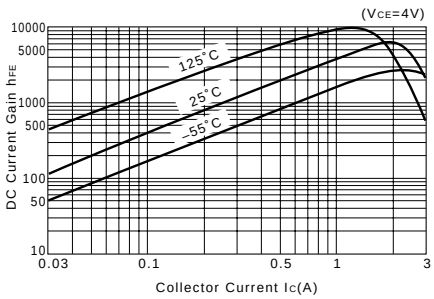
I_C–V_{BE} Temperature Characteristics (Typical)



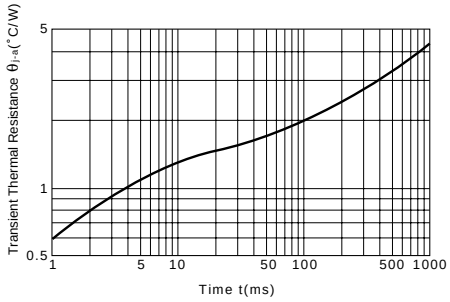
h_{FE}–I_C Characteristics (Typical)



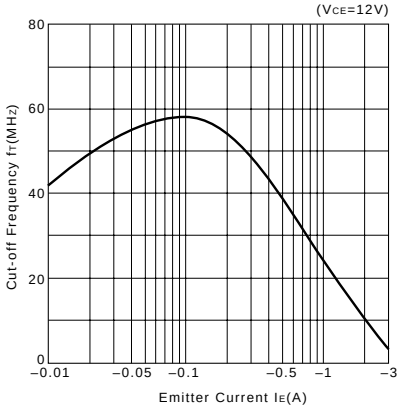
h_{FE}–I_C Temperature Characteristics (Typical)



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



f_T–I_E Characteristics (Typical)



Safe Operating Area (Single Pulse)

Pc–Ta Derating