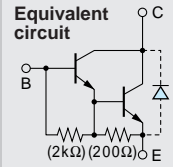


# Darlington

# 2SD2016



Silicon NPN Triple Diffused Planar Transistor

Application : Igniter, Relay and General Purpose

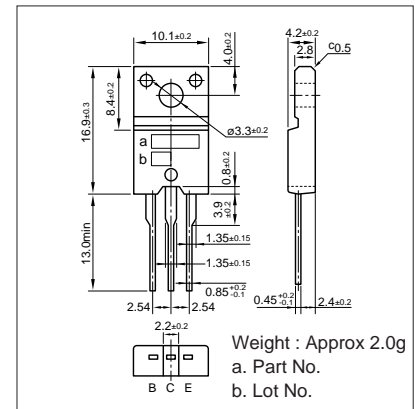
■ Absolute maximum ratings (Ta=25°C)

Symbol	Ratings	Unit
V <sub>CB0</sub>	200	V
V <sub>CEO</sub>	200	V
V <sub>EB0</sub>	6	V
I <sub>C</sub>	3	A
I <sub>B</sub>	0.5	A
P <sub>C</sub>	25(T <sub>C</sub> =25°C)	W
T <sub>J</sub>	150	°C
T <sub>stg</sub>	-55 to +150	°C

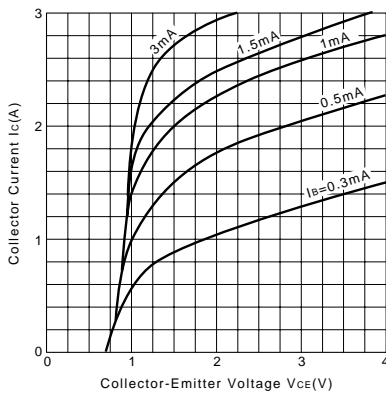
■ Electrical Characteristics (Ta=25°C)

Symbol	Conditions	Ratings	Unit
I <sub>CB0</sub>	V <sub>CB</sub> =200V	10max	μA
I <sub>EB0</sub>	V <sub>EB</sub> =6V	10max	mA
V <sub>(BR)CEO</sub>	I <sub>C</sub> =10mA	200min	V
h <sub>FE</sub>	V <sub>CE</sub> =4V, I <sub>C</sub> =1A	1000 to 15000	
V <sub>CE(sat)</sub>	I <sub>C</sub> =1A, I <sub>B</sub> =1.5mA	1.5max	V
V <sub>BE(sat)</sub>	I <sub>C</sub> =1A, I <sub>B</sub> =1.5mA	2.0max	V
f <sub>r</sub>	V <sub>CE</sub> =12V, I <sub>E</sub> =-0.1A	90typ	MHz
C <sub>OB</sub>	V <sub>CB</sub> =10V, f=1MHz	40typ	pF

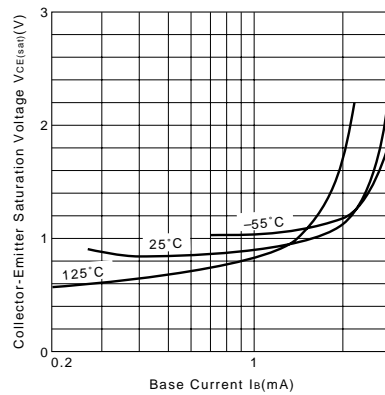
External Dimensions FM20(TO220F)



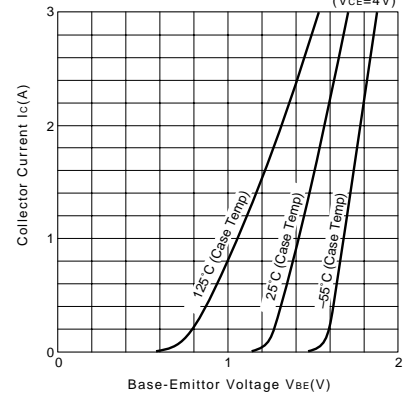
I<sub>C</sub>-V<sub>CE</sub> Characteristics (Typical)



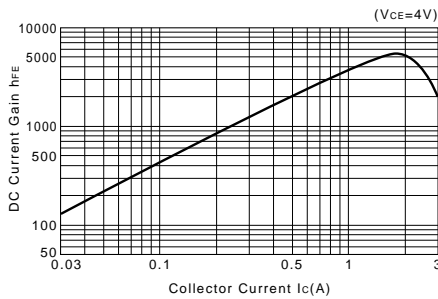
V<sub>CE(sat)</sub>-I<sub>B</sub> Characteristics (Typical)



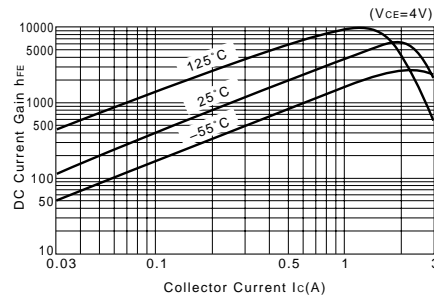
I<sub>C</sub>-V<sub>BE</sub> Temperature Characteristics (Typical)



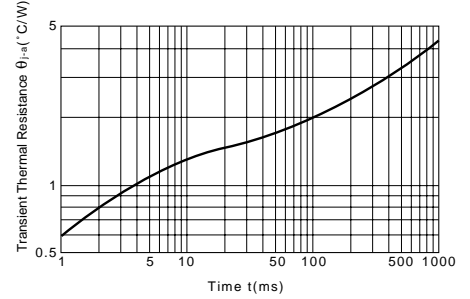
h<sub>FE</sub>-I<sub>C</sub> Characteristics (Typical)



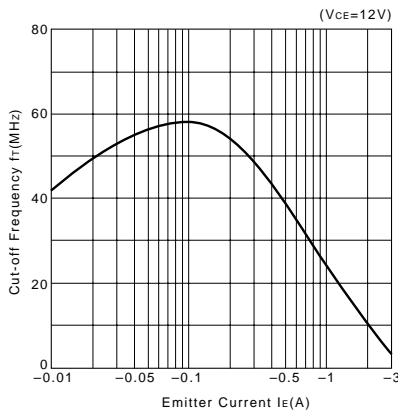
h<sub>FE</sub>-I<sub>C</sub> Temperature Characteristics (Typical)



θ<sub>j-a</sub>-t Characteristics



f<sub>r</sub>-I<sub>E</sub> Characteristics (Typical)



Safe Operating Area (Single Pulse)

P<sub>C</sub>-T<sub>a</sub> Derating

