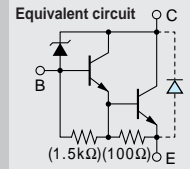


**Built-in Avalanche Diode
for Surge Absorbing
Darlington**

2SD2141



Silicon NPN Triple Diffused Planar Transistor

Application : Ignitor, Driver for Solenoid and Motor, and General Purpose

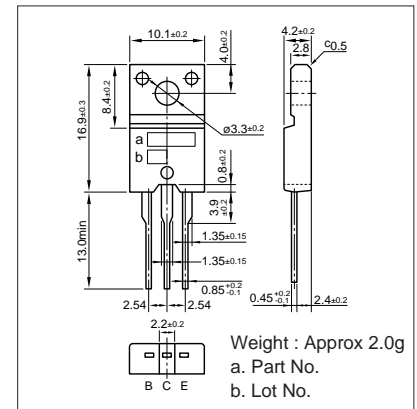
■Absolute maximum ratings (Ta=25°C)

| Symbol | Ratings | Unit |
|------------------|--------------------------|------|
| V _{CB0} | 380±50 | V |
| V _{CE0} | 380±50 | V |
| V _{EB0} | 6 | V |
| I _C | 6(Pulse10) | A |
| I _B | 1 | A |
| P _c | 35(T _c =25°C) | W |
| T _j | 150 | °C |
| T _{stg} | -55 to +150 | °C |

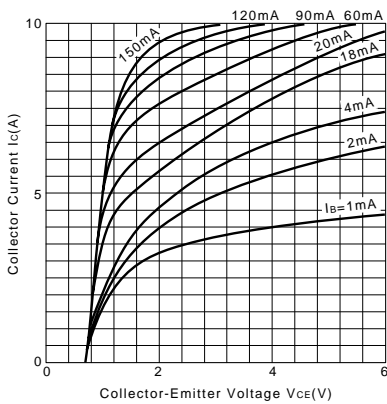
■Electrical Characteristics (Ta=25°C)

| Symbol | Conditions | Ratings | Unit |
|----------------------|---|------------|------|
| I _{CB0} | V _{CB} =330V | 10max | μA |
| I _{EB0} | V _{EB} =6V | 20max | mA |
| V _{(BR)CEO} | I _C =25mA | 330 to 430 | V |
| h _{FE} | V _{CE} =2V, I _C =3A | 1500min | |
| V _{CE(sat)} | I _C =4A, I _B =20mA | 1.5max | V |
| f _T | V _{CE} =12V, I _E =-0.5A | 20typ | MHz |
| COB | V _{CB} =10V, f=1MHz | 95typ | pF |

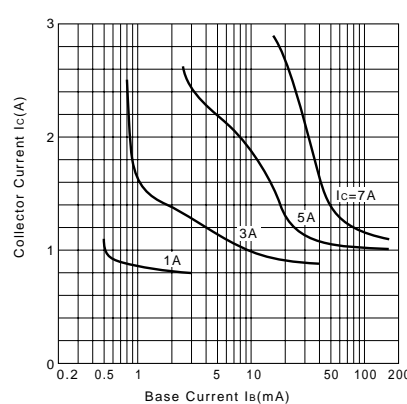
External Dimensions FM20(TO220F)



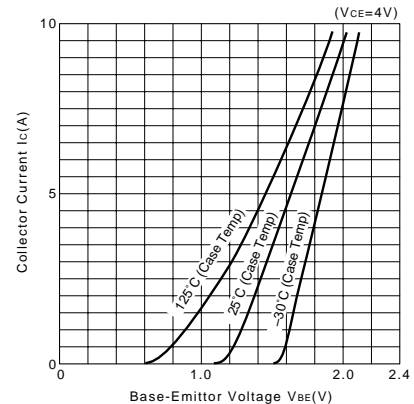
I_C-V_{CE} Characteristics (Typical)



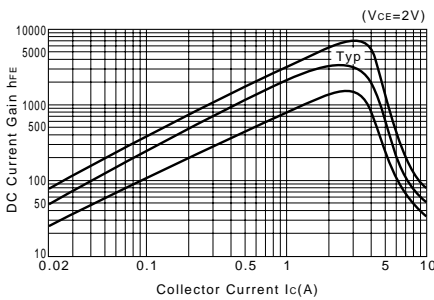
V_{CE(sat)}-I_B Characteristics (Typical)



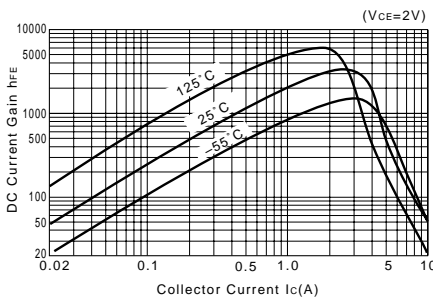
I_C-V_{BE} Temperature Characteristics (Typical)



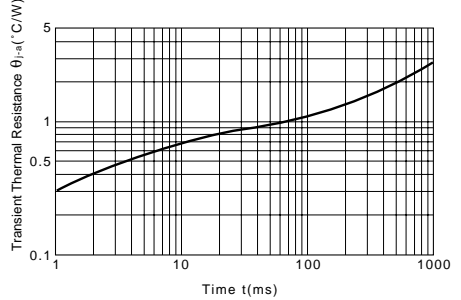
h_{FE}-I_C Characteristics (Typical)



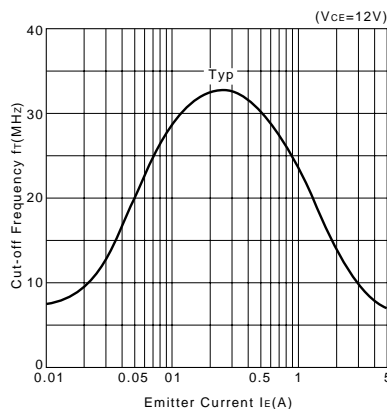
h_{FE}-I_C Temperature Characteristics (Typical)



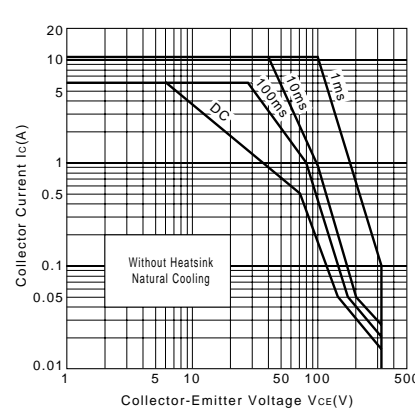
θ_{j-a}-t Characteristics



f_T-I_E Characteristics (Typical)



Safe Operating Area (Single Pulse)



P_c-T_a Derating

