

2SC4388

Silicon NPN Triple Diffused Planar Transistor (Complement to type 2SA1673)

Application : Audio and General Purpose

Absolute maximum ratings (Ta=25°C)

| Symbol | 2SC4388 | Unit |
|--------|-------------|------|
| VCBO | 200 | V |
| VCEO | 180 | V |
| VEBO | 6 | V |
| IC | 15 | A |
| IB | 4 | A |
| Pc | 85(Tc=25°C) | W |
| Tj | 150 | °C |
| Tstg | -55 to +150 | °C |

Electrical Characteristics (Ta=25°C)

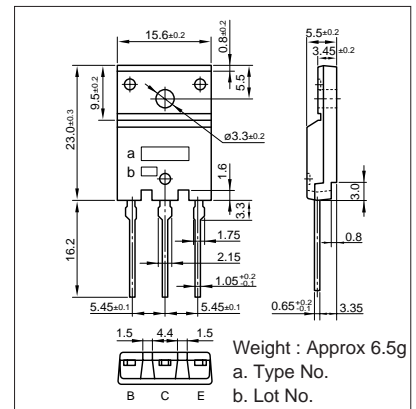
| Symbol | Conditions | 2SC4388 | Unit |
|----------------------|---|---------|------|
| ICBO | V _{CB} =200V | 10max | μA |
| IEBO | V _{EB} =6V | 10max | μA |
| V(BR)CEO | I _C =50mA | 180min | V |
| h _{FE} | V _{CE} =4V, I _C =3A | 50min* | |
| V _{CE(sat)} | I _C =5A, I _B =0.5A | 2.0max | V |
| f _r | V _{CE} =12V, I _E =-0.5A | 20typ | MHz |
| COB | V _{CB} =10V, f=1MHz | 300typ | pF |

*h_{FE} Rank: O(50 to 100), P(70 to 140), Y(90 to 180)

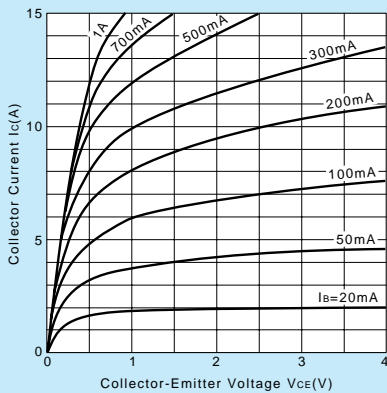
Typical Switching Characteristics (Common Emitter)

| V _{CC} (V) | R _L (Ω) | I _C (A) | V _{BB1} (V) | V _{BB2} (V) | I _{B1} (A) | I _{B2} (A) | t _{on} (μs) | t _{stg} (μs) | t _f (μs) |
|------------------------|-----------------------|-----------------------|-------------------------|-------------------------|------------------------|------------------------|-------------------------|--------------------------|------------------------|
| 40 | 4 | 10 | 10 | -5 | 1 | -1 | 0.5max | 1.8max | 0.6max |

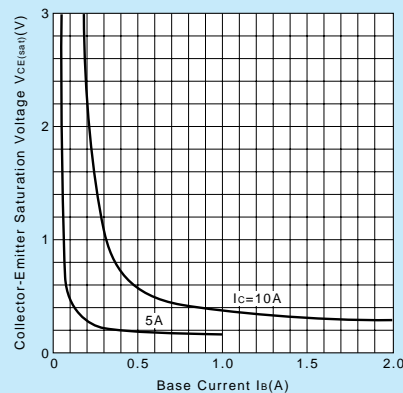
External Dimensions FM100(TO3PF)



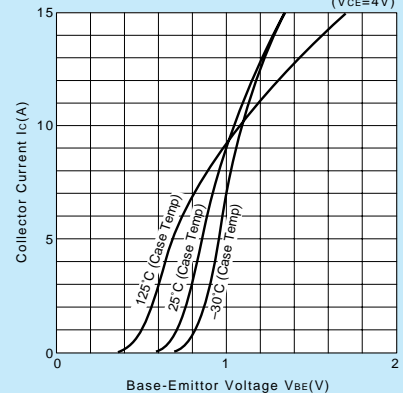
I_C-V_{CE} Characteristics (Typical)



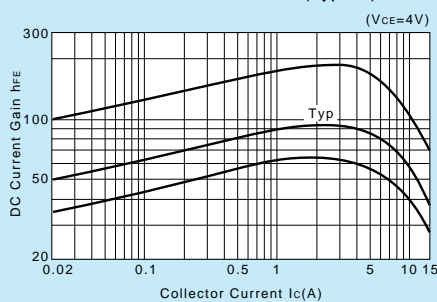
V_{CE(sat)}-I_B Characteristics (Typical)



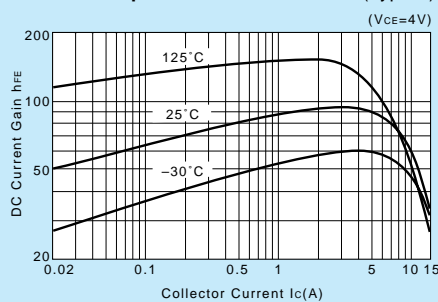
I_C-V_{BE} Temperature Characteristics (Typical)



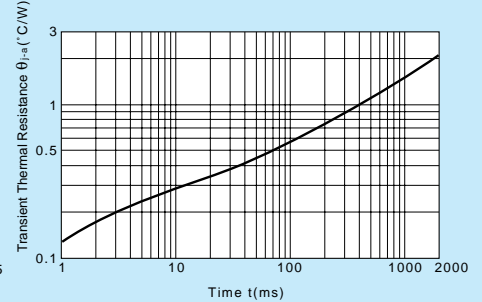
h_{FE}-I_C Characteristics (Typical)



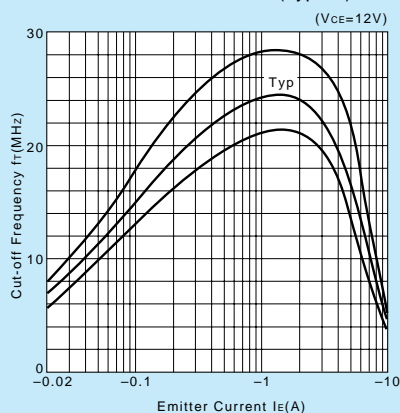
h_{FE}-I_C Temperature Characteristics (Typical)



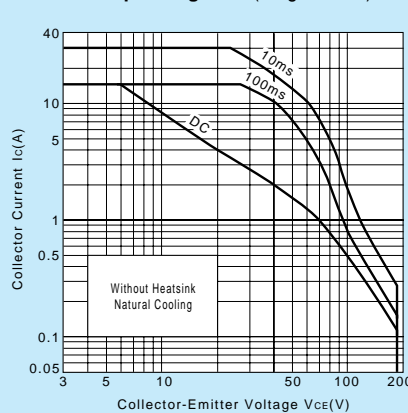
θ_{j-a}-t Characteristics



f_r-I_E Characteristics (Typical)



Safe Operating Area (Single Pulse)



P_c-T_a Derating

