High hFE Low VCE (sat) 2SC4024

Silicon NPN Epitaxial Planar Transistor

Application : DC-DC Converter, Emergency Lighting Inverter and General Purpose

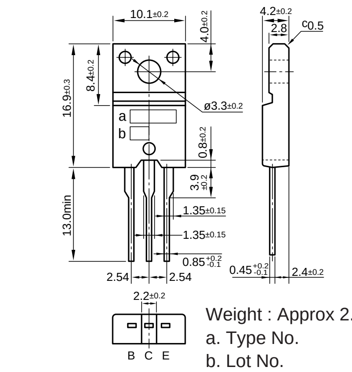
Absolute maximum ratings (Ta=25°C)

Symbol	2SC4024	Unit
VCBO	100	V
VCEO	50	V
VEBO	15	V
IC	10	A
IB	3	A
PC	35(Tc=25°C)	W
Tj	150	°C
Tstg	–55 to +150	°C

Electrical Characteristics (Ta=25°C)

Symbol	Conditions	2SC4024	Unit
ICBO	VCB=100V	10max	μA
IEBO	VEB=15V	10max	μA
V(BR)CEO	IC=25mA	50min	V
hFE	VCE=4V, IC=1A	300 to 1600	
VCE(sat)	IC=5A, IB=0.1A	0.5max	V
fT	VCE=12V, IE=–0.5A	24typ	MHz
COB	VCB=10V, f=1MHz	150typ	pF

External Dimensions FM20(TO220F)

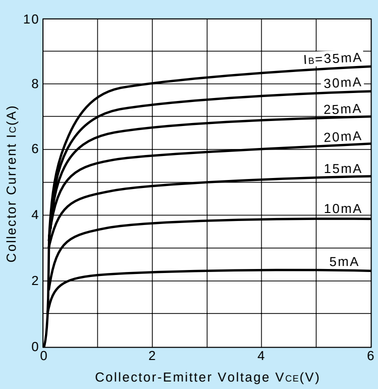


Weight : Approx 2.0g
a. Type No.
b. Lot No.

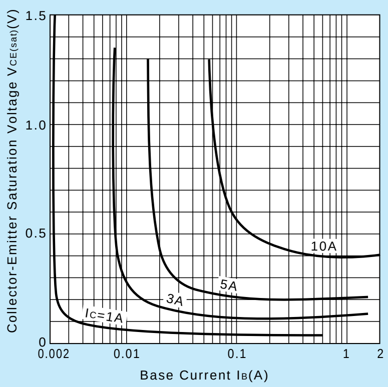
Typical Switching Characteristics (Common Emitter)

VCC (V)	RL (Ω)	IC (A)	IB1 (A)	IB2 (A)	ton (μs)	tstg (μs)	tf (μs)
20	4	5	0.1	–0.1	0.5typ	2.0typ	0.5typ

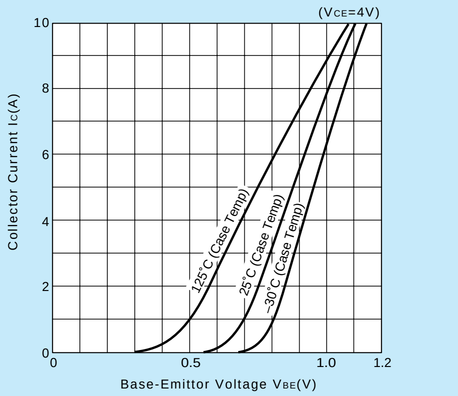
IC–VCE Characteristics (Typical)



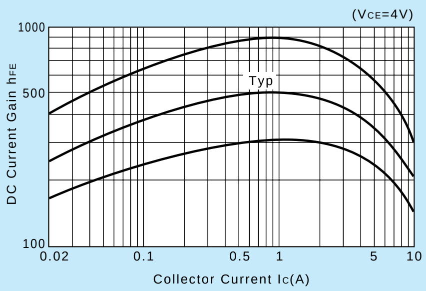
VCE(sat)–IB Characteristics (Typical)



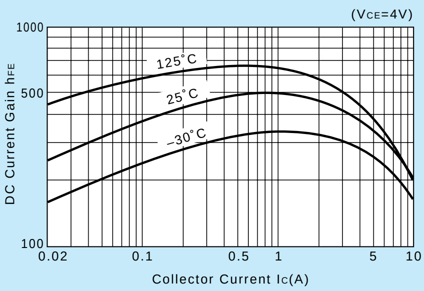
IC–VBE Temperature Characteristics (Typical)



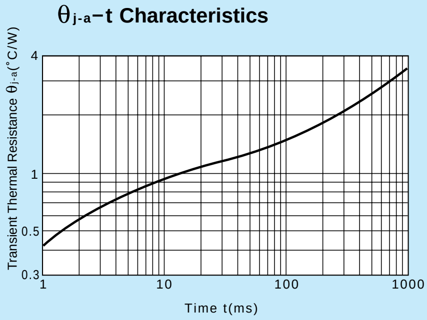
hFE–IC Characteristics (Typical)



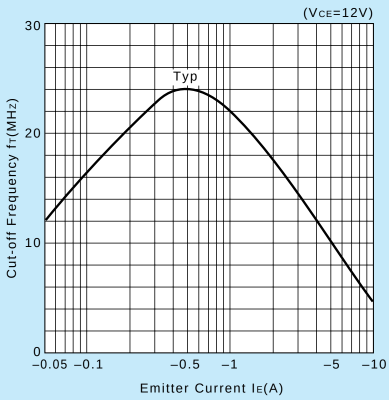
hFE–IC Temperature Characteristics (Typical)



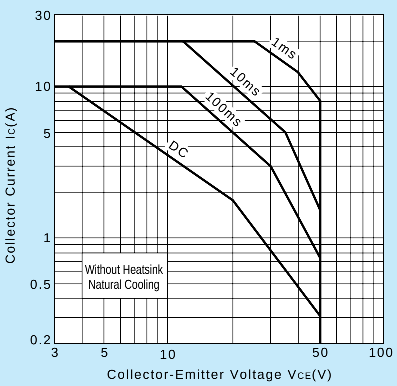
θj-a–t Characteristics



fT–IE Characteristics (Typical)



Safe Operating Area (Single Pulse)



PC–Ta Derating