

2SC4024

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

(Ta=25°C)

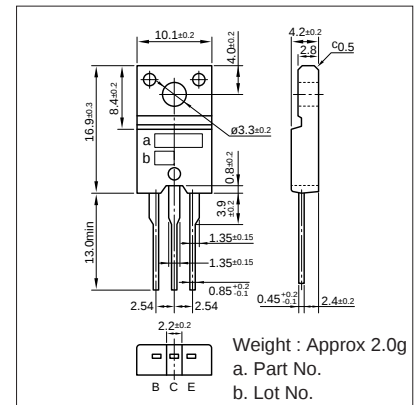
Symbol	Ratings	Unit
VCBO	100	V
VCEO	50	V
VEBO	15	V
IC	10	A
IB	3	A
PC	35(Tc=25°C)	W
Tj	150	°C
Tstg	-55 to +150	°C

Symbol	Conditions	Ratings	Unit
ICBO	$V_{CB}=100V$	10max	μA
IEBO	$V_{EB}=15V$	10max	μA
$V_{(BR)CEO}$	$I_C=25mA$	50min	V
h_{FE}	$V_{CE}=4V, I_C=1A$	300 to 1600	
$V_{CE(sat)}$	$I_C=5A, I_B=0.1A$	0.5max	V
f_T	$V_{CE}=12V, I_E=-0.5A$	24typ	MHz
COB	$V_{CB}=10V, f=1MHz$	150typ	pF

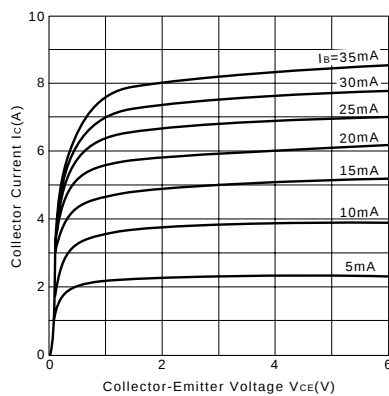
■ Typical Switching Characteristics (Common Emitter)

V _{CC} (V)	R _L (Ω)	I _C (A)	I _{B1} (A)	I _{B2} (A)	t _{on} (μs)	t _{stg} (μs)	t _f (μs)
20	4	5	0.1	-0.1	0.5typ	2.0typ	0.5typ

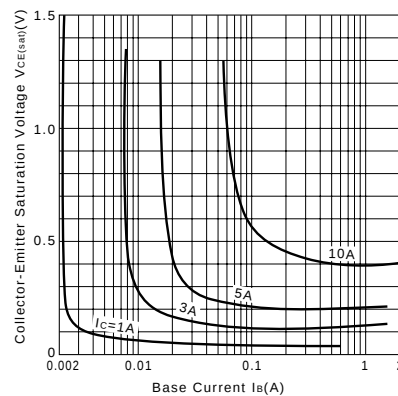
External Dimensions FM20(TO220F)



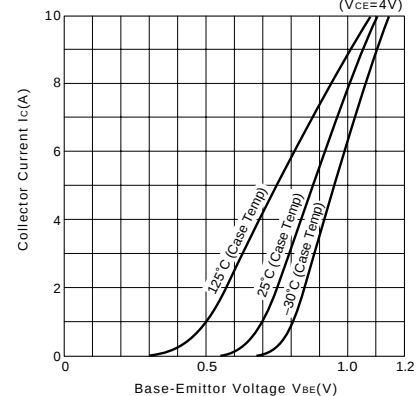
I_C-V_{CE} Characteristics (Typical)



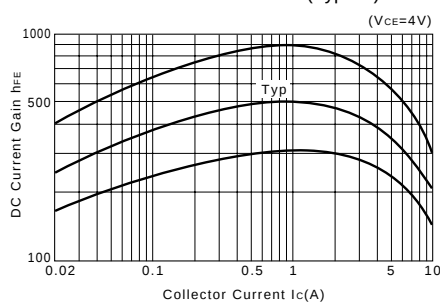
V_{CE(sat)}-I_B Characteristics (Typical)



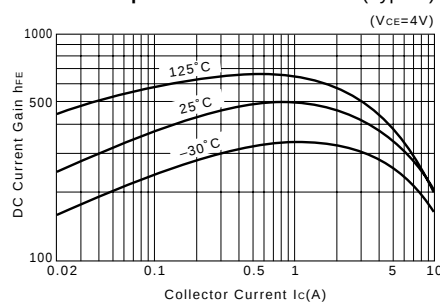
I_C-V_{BE} Temperature Characteristics (Typical)



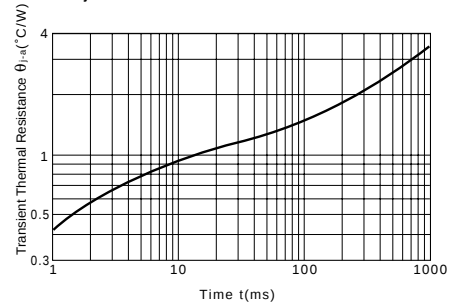
$h_{FE}-I_C$ Characteristics (Typical)



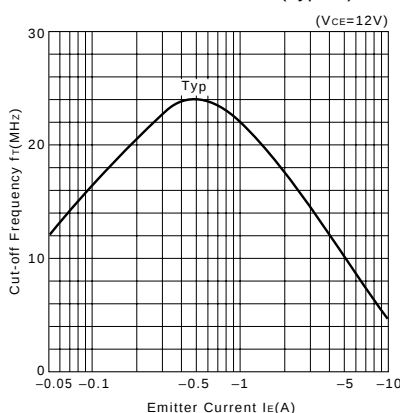
h_{FE} - I_C Temperature Characteristics (Typical)



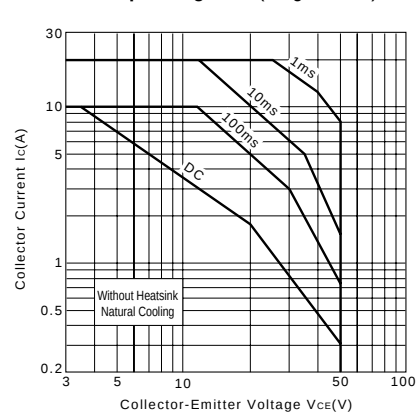
θ_{j-a-t} Characteristics



f_T-I_E Characteristics (Typical)



Safe Operating Area (Single Pulse)



Pc-Ta Derating

