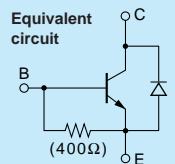


Built-in Diode at C-E
Low V_{CE}(sat)

2SC4065



Silicon NPN Epitaxial Planar Transistor (Complement to type 2SA1568)

Application : DC Motor Driver and General Purpose

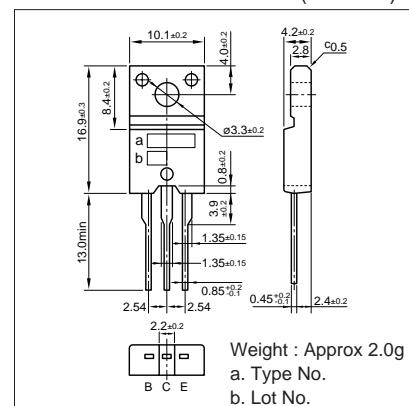
Absolute maximum ratings (Ta=25°C)

Symbol	2SC4065	Unit
V _{CBO}	60	V
V _{CEO}	60	V
V _{EBO}	6	V
I _c	±12	A
I _b	3	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	2SC4065	Unit
I _{cbo}	V _{CB} =60V	100max	μA
I _{ebo}	V _{EB} =6V	60max	mA
V _{(BR)CEO}	I _c =25mA	60min	V
h _{FE}	V _{CE} =1V, I _c =6A	50min	
V _{CE(sat)}	I _c =6A, I _b =1.3A	0.35max	V
V _{fec}	V _{ECO} =10A	2.5max	V
f _t	V _{CE} =12V, I _b =-0.5A	24typ	MHz
COB	V _{CB} =10V, f=1MHz	180typ	PF

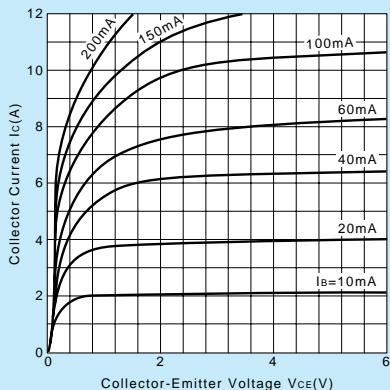
External Dimensions FM20(TO220)



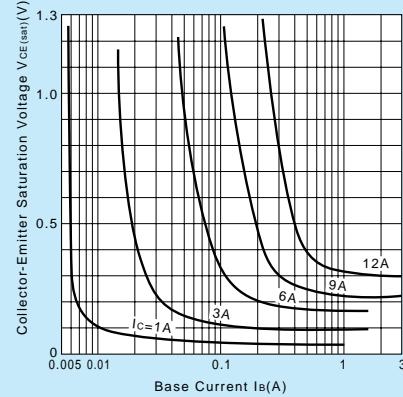
Typical Switching Characteristics (Common Emitter)

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)
24	4	6	10	-5	0.12	-0.12	0.6typ	1.4typ	0.4typ

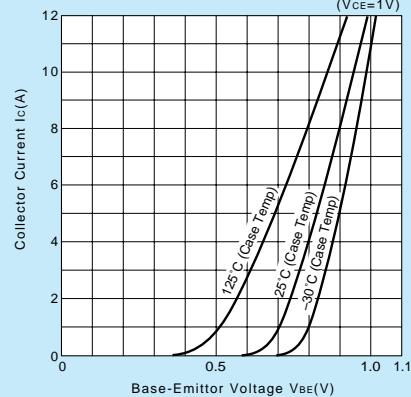
I_c-V_{CE} Characteristics (Typical)



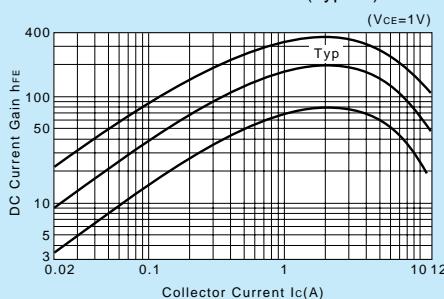
V_{CE(sat)}-I_b Characteristics (Typical)



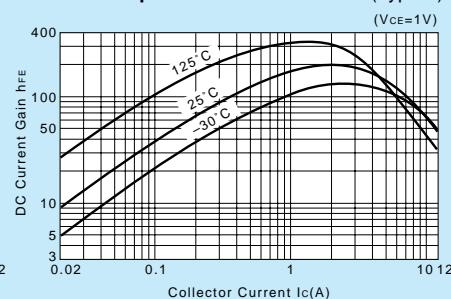
I_c-V_{BE} Temperature Characteristics (Typical)



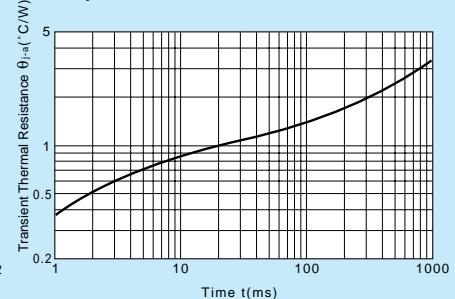
h_{FE}-I_c Characteristics (Typical)



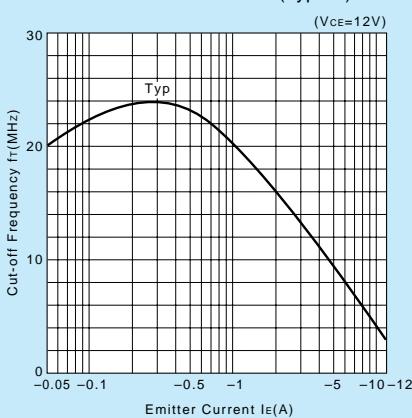
h_{FE}-I_c Temperature Characteristics (Typical)



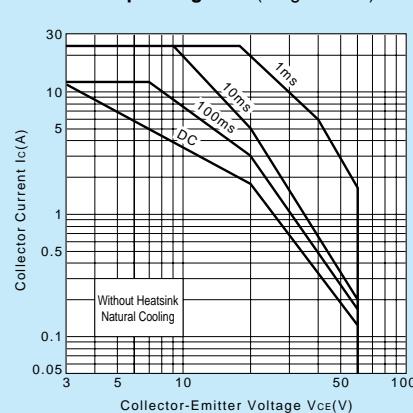
θ_{j-a-t} Characteristics



f_t-I_e Characteristics (Typical)



Safe Operating Area (Single Pulse)



P_c-Ta Derating

