Silicon NPN Power Transistors 2SC4064

DESCRIPTION

·With TO-220F package
·Complement to type 2SA1567
·Low collector saturation voltage

APPLICATIONS

·For DC motor driver and general purpose

PINNING

PIN	DESCRIPTION
1	Base
2	Collector
3	Emitter

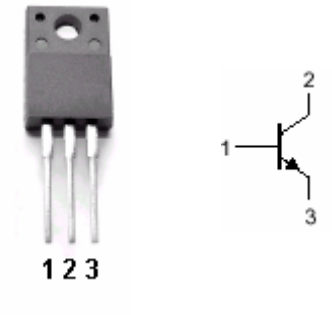

Fig.1 simplified outline (TO-220F) and symbol

Absolute maximum ratings (Ta=25□)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	Open emitter	50	V
V_{CEO}	Collector-emitter voltage	Open base	50	V
V_{EBO}	Emitter-base voltage	Open collector	6	V
I_C	Collector current		12	A
I_B	Base current		3	A
P_C	Collector power dissipation	T_C=25□	35	W
T_j	Junction temperature		150	□
T_{stg}	Storage temperature		-55~150	□

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CHARACTERISTICS

Tj=25□ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{(BR)CEO}$	Collector-emitter breakdown voltage	I_C=25mA; I_B=0	50			V
V_{CEsat}	Collector-emitter saturation voltage	I_C=6A;I_B=0.3 A			0.35	V
I_{CBO}	Collector cut-off current	V_{CB}=50V; I_E=0			100	μA
I_{EBO}	Emitter cut-off current	V_{EB}=6V; I_C=0			10	μA
h_{FE}	DC current gain	I_C=6A ; V_{CE}=1V	50			
f_T	Transition frequency	I_C=0.5A ; V_{CE}=12V		40		MHz
C_{OB}	Output capacitance	I_E=0; V_{CB}=10V;f=1MHz		180		pF
Switching times						
t_{on}	Turn-on time	I_C=6A;R_L=4Ω I_{B1}=- I_{B2}=0.12A V_{CC}=24V		0.60		μs
t_s	Storage time			1.40		μs
t_f	Fall time			0.40		μs

PACKAGE OUTLINE

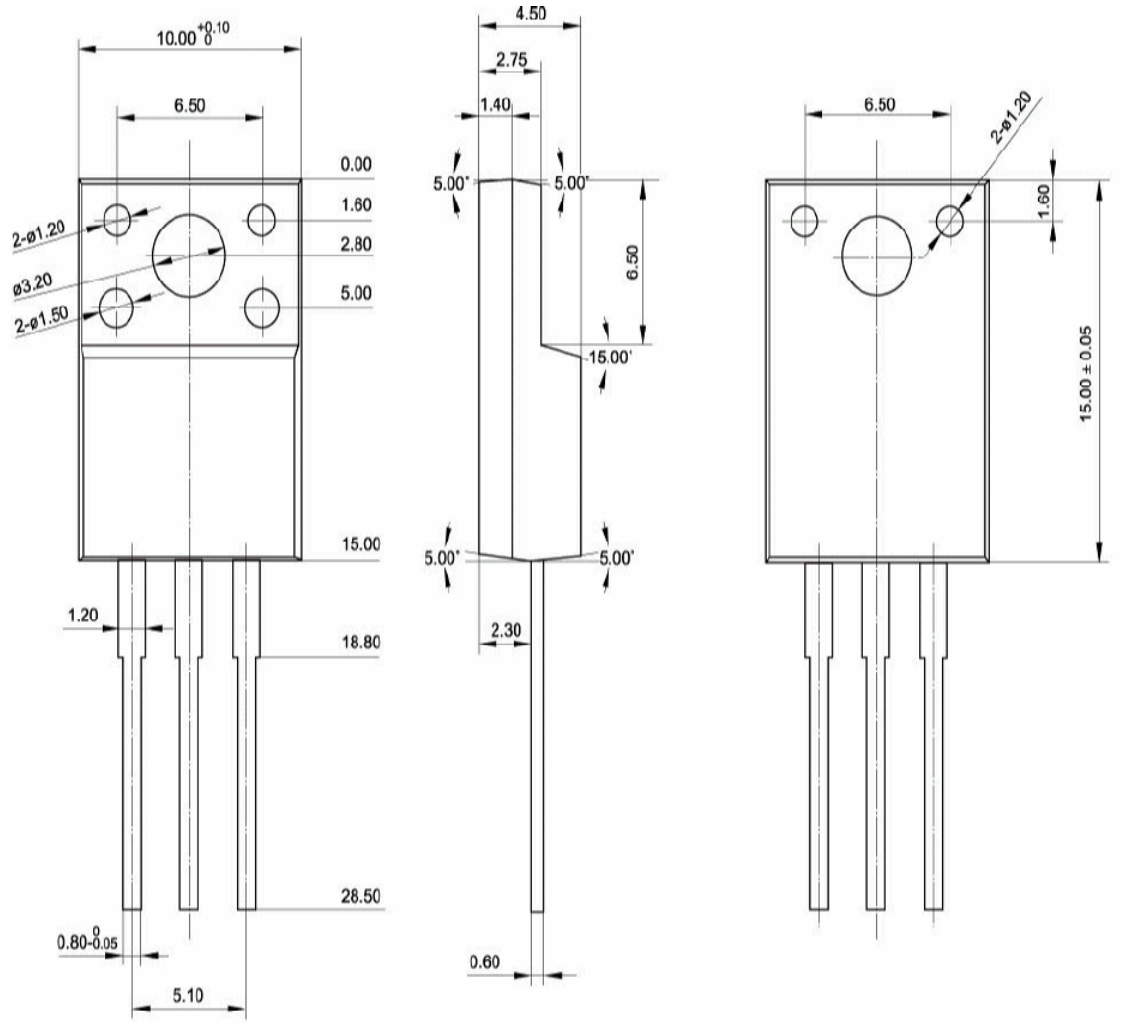

Fig.2 Outline dimensions

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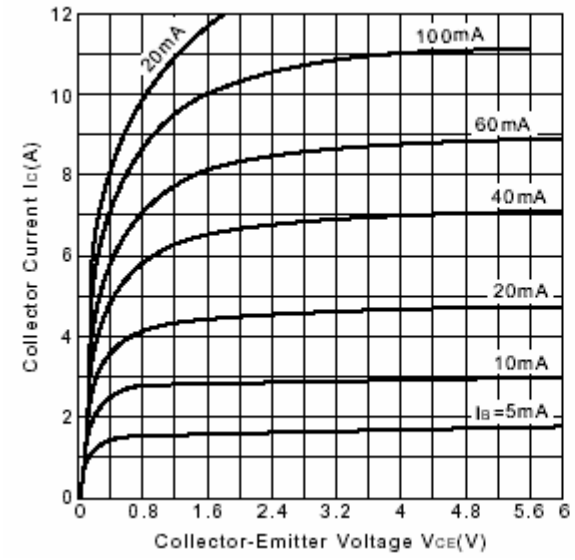

Fig.3 Static Characteristic

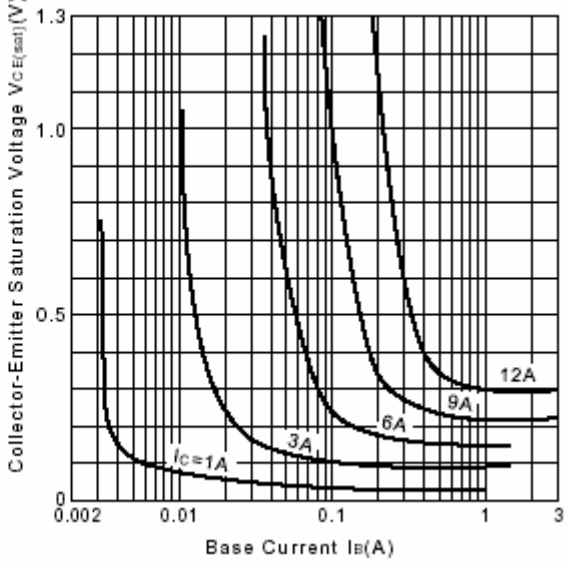

Fig.4 $V_{CE}(sat)-I_B$ Characteristics

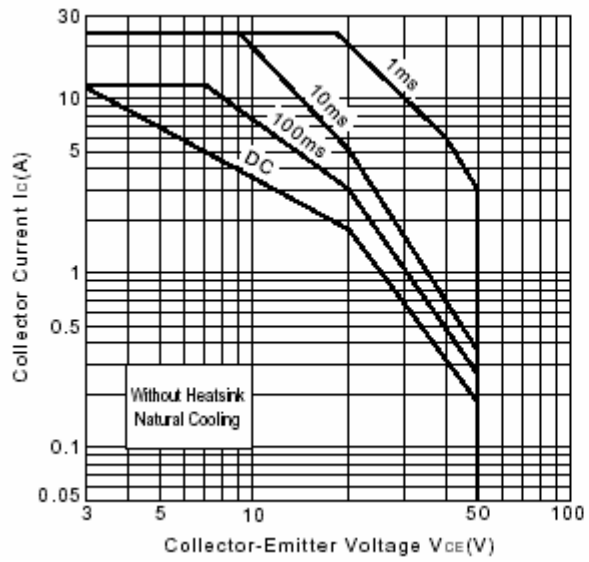

Fig.5 Safe Operating Area

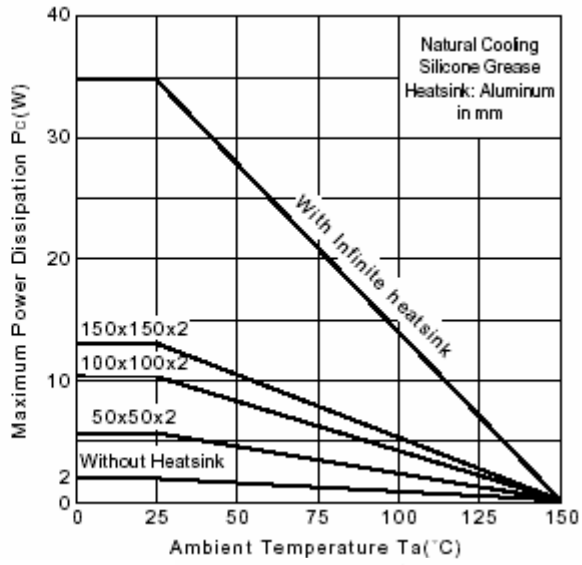

Fig.6 Pc-Ta Derating

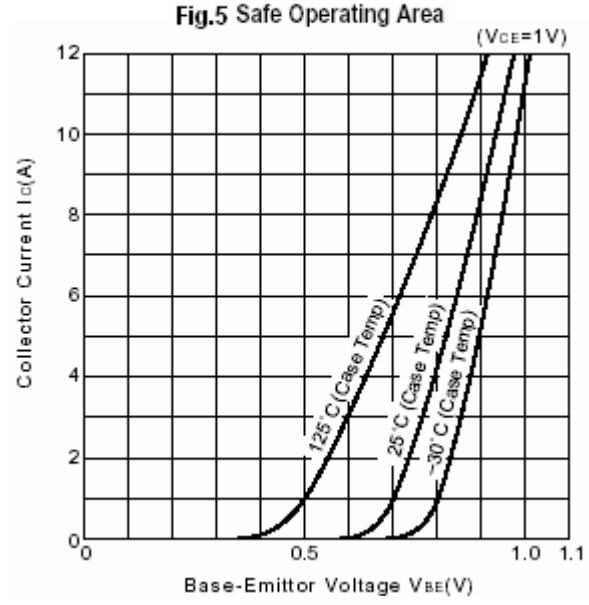

Fig.7 I_C-V_{BE}

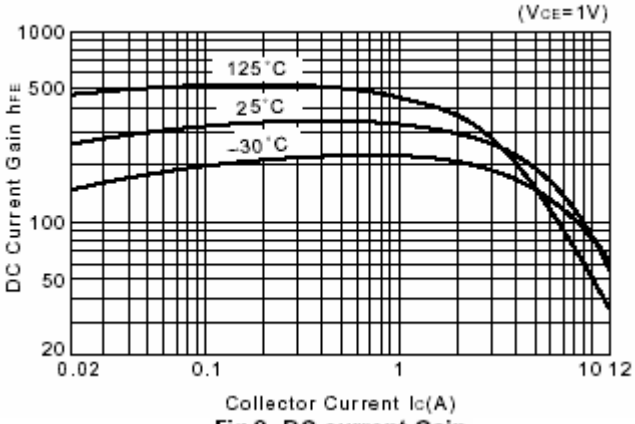

Fig.8 DC current Gain