Silicon NPN Power Transistors 2SC4518 2SC4518A

DESCRIPTION

- With TO-220F package
- High voltage switching transistor

APPLICATIONS

- For switching regulator ;lighting inverter and general purpose applications

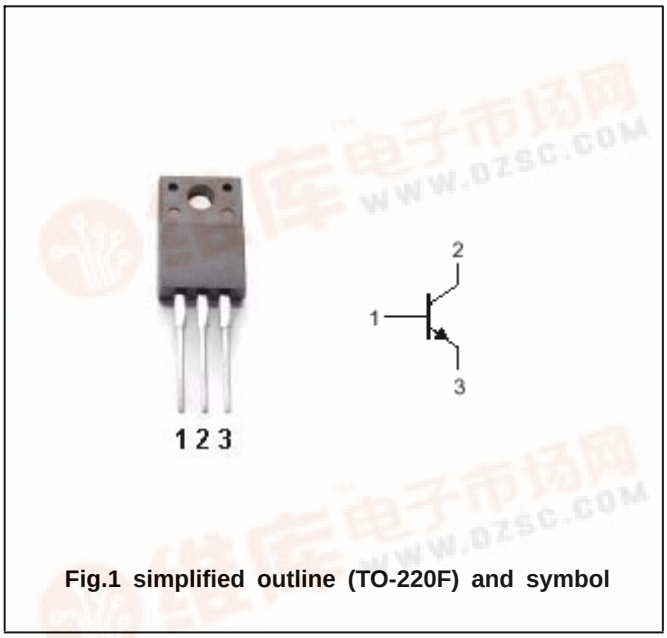

Fig.1 simplified outline (TO-220F) and symbol

PINNING

PIN	DESCRIPTION
1	Base
2	Collector
3	Emitter

Absolute maximum ratings (Ta=25℃)

SYMBOL	PARAMETER		CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	2SC4518	Open emitter	900	V
		2SC4518A		1000	
V_{CEO}	Collector-emitter voltage		Open base	550	V
V_{EBO}	Emitter-base voltage		Open collector	7	V
I_C	Collector current			5	A
I_{CM}	Collector current-pulse			10	A
I_B	Base current			2.5	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=10mA ; I_B=0	550			V
V_{CEsat}	Collector-emitter saturation voltage	I_C=1.8A; I_B=0.36A			0.5	V
V_{BEsat}	Base-emitter saturation voltage	I_C=1.8A; I_B=0.36A			1.2	V
I_{CBO}	Collector cut-off current	V_{CB}=800V; I_E=0			100	μA
I_{EBO}	Emitter cut-off current	V_{EB}=7V; I_C=0			100	μA
h_{FE}	DC current gain	I_C=1.8A ; V_{CE}=4V	10		25	
C_{OB}	Output capacitance	I_E=0; V_{CB}=10V;f=1MHz		50		pF
f_T	Transition frequency	I_E=-0.35A ; V_{CE}=12V		6		MHz
Switching times						
t_{on}	Turn-on time	I_C=1.8A; I_{B1}=0.27A I_{B2}=-0.9A V_{CC}=250V ,R_L=139Ω			0.7	μs
t_s	Storage time				4.0	μs
t_f	Fall time				0.5	μs

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PACKAGE OUTLINE

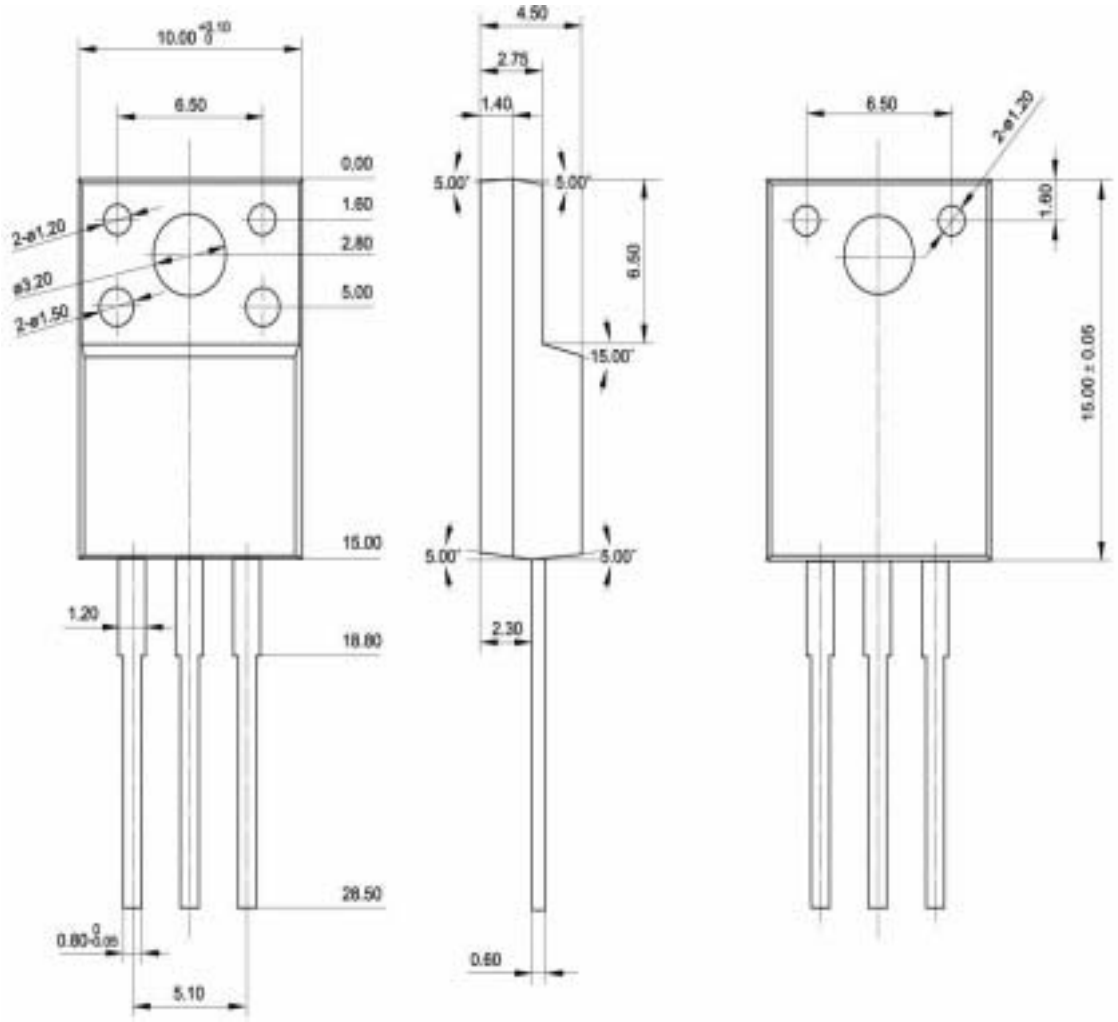

Fig.2 Outline dimensions

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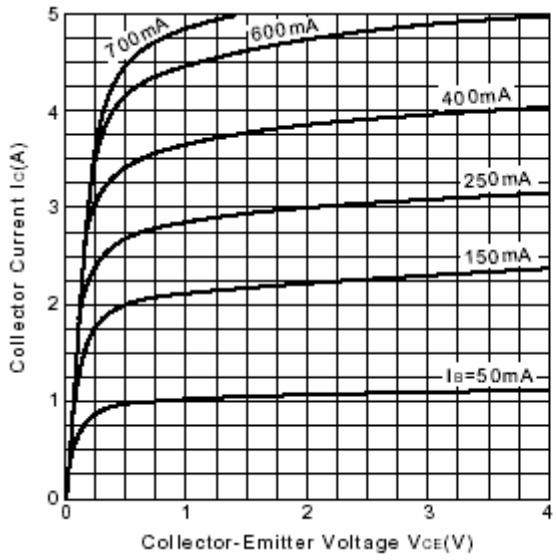

Fig.3 Static Characteristic

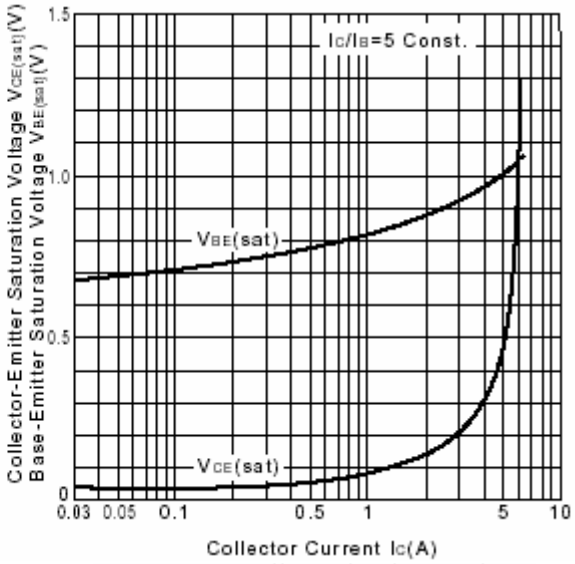

Fig.4 Base-Emitter Saturation Voltage
Collector-Emitter Saturation Voltage

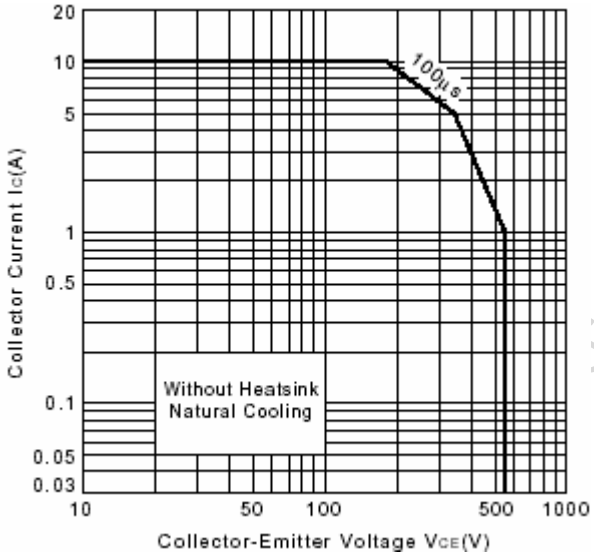

Fig.5 Safe Operating Area

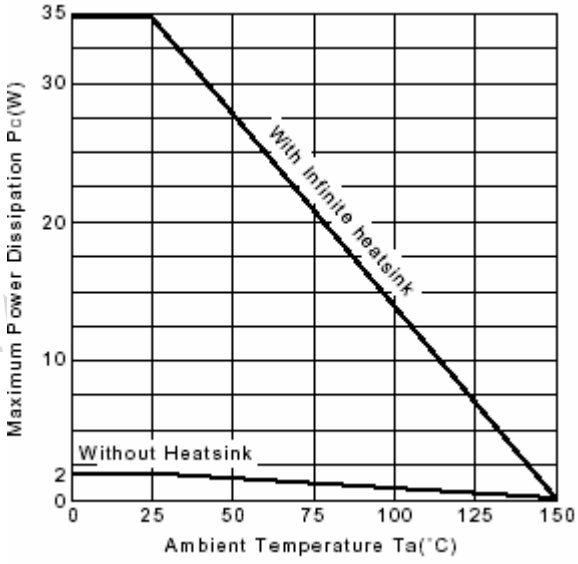

Fig.6 Pc-Ta Derating

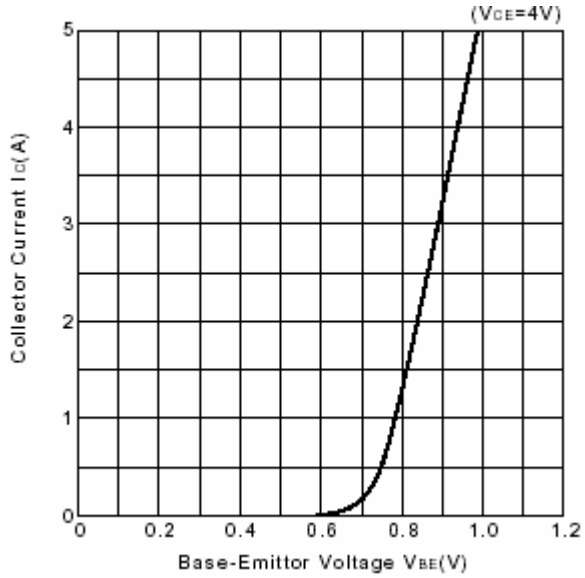

Fig.7 IC-VBE

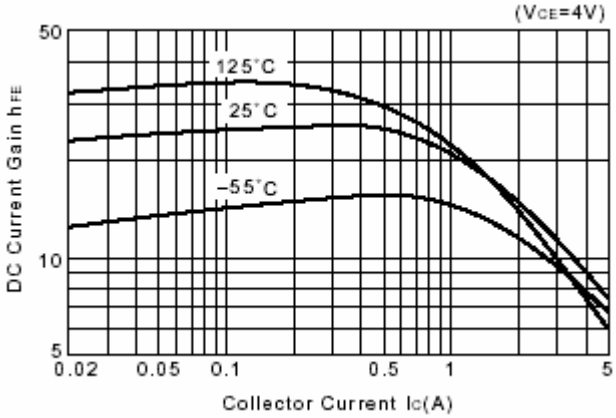

Fig.8 DC current Gain