Silicon NPN Power Transistors 2SC2979

DESCRIPTION

·With TO-220C package
·High V_{CBO}
·Fast switching speed.

APPLICATIONS

·For high voltage ,high speed and high power switching applications

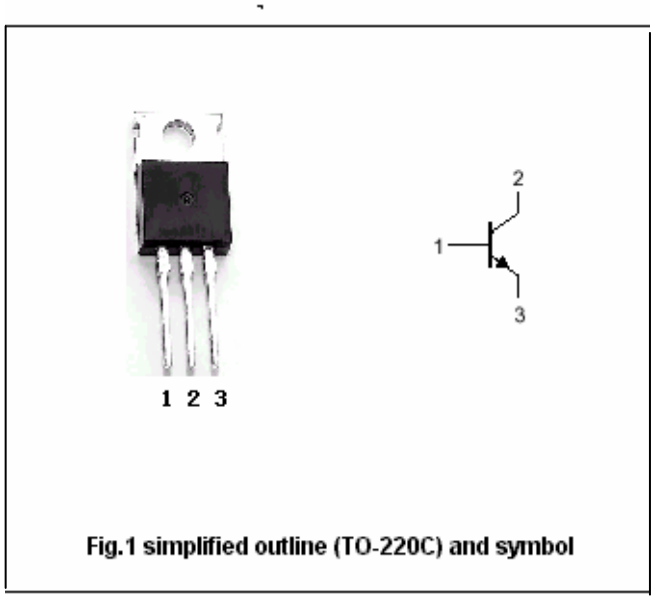

Fig.1 simplified outline (TO-220C) and symbol

PINNING

PIN	DESCRIPTION
1	Base
2	Collector;connected to mounting base
3	Emitter

Absolute maximum ratings(Ta=25□)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	Open emitter	900	V
V_{CEO}	Collector-emitter voltage	Open base	800	V
V_{EBO}	Emitter-base voltage	Open collector	7	V
I_C	Collector current		3	A
I_{CM}	Collector current-peak		6	A
I_B	Base current		1.5	A
P_C	Collector dissipation	T_C=25□	40	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
$V_{CEO(SUS)}$	Collector-emitter sustaining voltage	I_C=0.2A; R_{BE}=∞,L=100mH	800			V
$V_{(BR)EBO}$	Base-emitter breakdown voltage	I_E=10mA ; I_C=0	7			V
V_{CEsat}	Collector-emitter saturation voltage	I_C=0.75A; I_B=0.15A			1.0	V
V_{BEsat}	Base-emitter saturation voltage	I_C=0.75A; I_B=0.15A			1.5	V
I_{CBO}	Collector cut-off current	V_{CB}=750V ;I_E=0			100	μA
I_{CEO}	Collector cut-off current	V_{CE}=650V; R_{BE}=∞			100	μA
h_{FE-1}	DC current gain	I_C=0.3A ; V_{CE}=5V	15			
h_{FE-2}	DC current gain	I_C=1.5A ; V_{CE}=5V	7			

Switching times

t_{on}	Turn-on time	V_{CC}≈250V; I_C=1.5A I_{B1}=0.3A;I_{B2}=-0.75A			1.0	μs
t_{stg}	Storage time				3.0	μs
t_f	Fall time				1.0	μs

PACKAGE OUTLINE

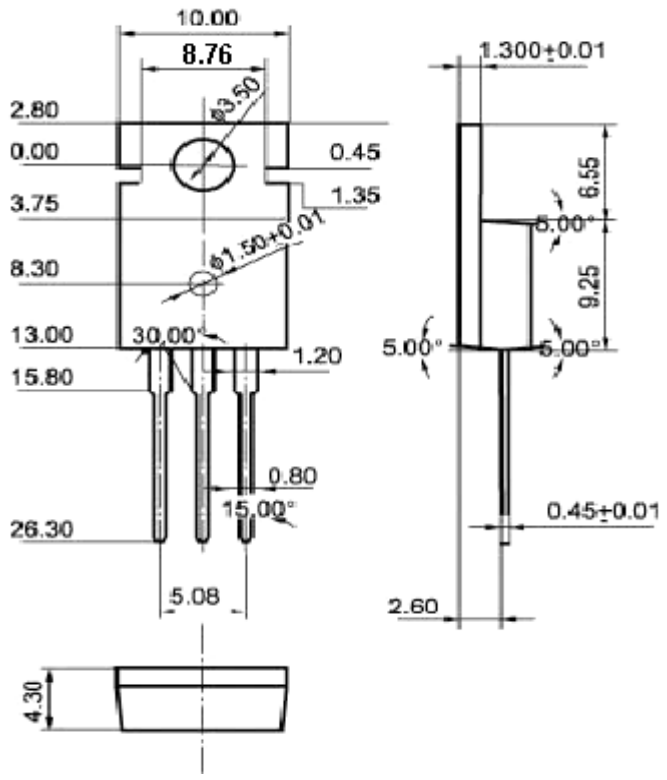

Fig.2 Outline dimensions (unindicated tolerance:±0.10 mm)

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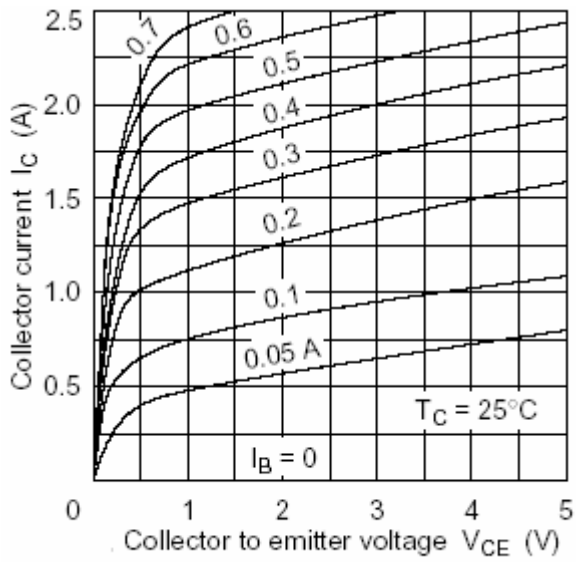

Fig.3 Static Characteristic

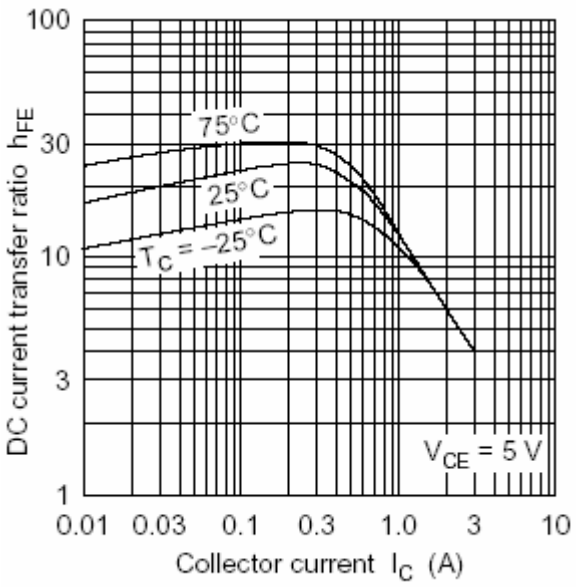

Fig.4 DC current Gain

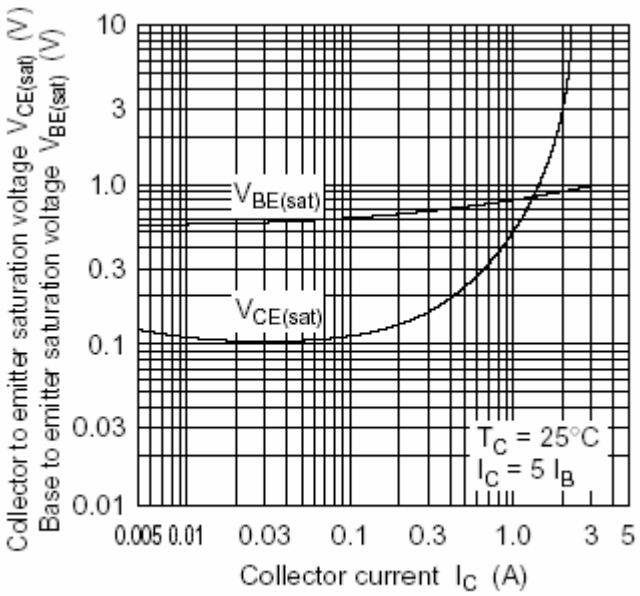

Fig.5 Base-Emitter Saturation Voltage Collector-Emitter Saturation Voltage

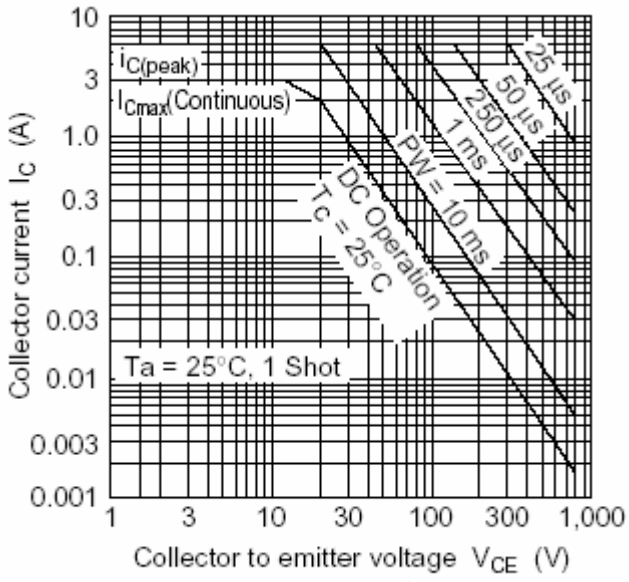

Fig.6 Safe Operating Area