Silicon NPN Power Transistors 2SC2517

DESCRIPTION

·With TO-220C package
·Low collector saturation voltage
·Wide area of safe operation

APPLICATIONS

·Switching regulators
·DC-DC converters
·High frequency power amplifiers

PINNING

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

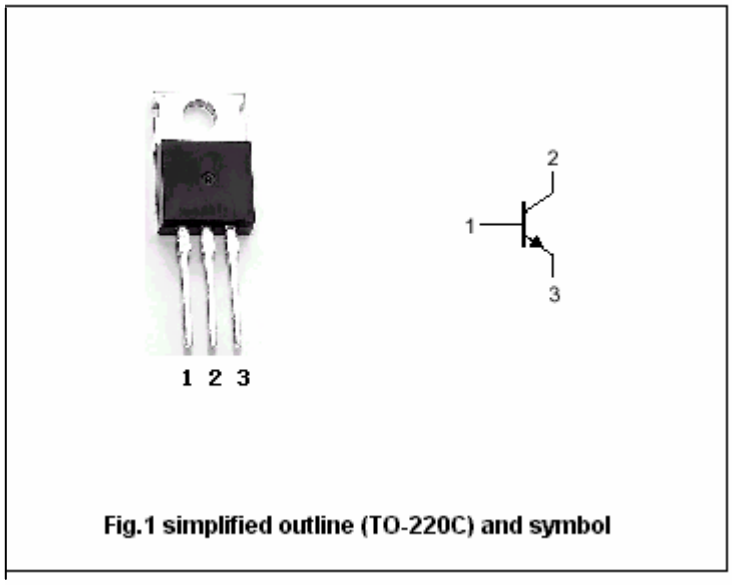


Fig.1 simplified outline (TO-220C) and symbol

Absolute maximum ratings(Ta=25□)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	Open emitter	150	V
V_{CEO}	Collector-emitter voltage	Open base	100	V
V_{EBO}	Emitter-base voltage	Open collector	12	V
I_C	Collector current		5	A
I_{CM}	Collector current-peak		10	A
I_B	Base current		2.5	A
P_T	Total power dissipation	T_a=25□	1.5	W
		T_C=25□	30	
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=3.0A ; I_{B1}=0.3A;L=1mH	100			V
V_{CEsat}	Collector-emitter saturation voltage	I_C=3A; I_B=0.3A			0.6	V
V_{BEsat}	Base-emitter saturation voltage	I_C=3A; I_B=0.3A			1.5	V
I_{CBO}	Collector cut-off current	V_{CB}=100V ;I_E=0			10	μA
I_{CEX}	Collector cut-off current	V_{CE}=100V; V_{BE}=-1.5V Ta=125□			10 1	μA mA
I_{EBO}	Emitter cut-off current	V_{EB}=10V ;I_C=0			10	μA
h_{FE-1}	DC current gain	I_C=0.2 A ; V_{CE}=5V	40			
h_{FE-2}	DC current gain	I_C=2 A ; V_{CE}=5V	40		200	

Switching times

t_{on}	Turn-on time	I_C=3A; I_{B1}=-I_{B2}=0.3A R_L=17Ω; V_{CC}=50V			0.5	μs
t_s	Storage time				2.5	μs
t_f	Fall time				0.5	μs

◆ h_{FE-2} Classifications

M	L	K
40-80	60-120	100-200

PACKAGE OUTLINE

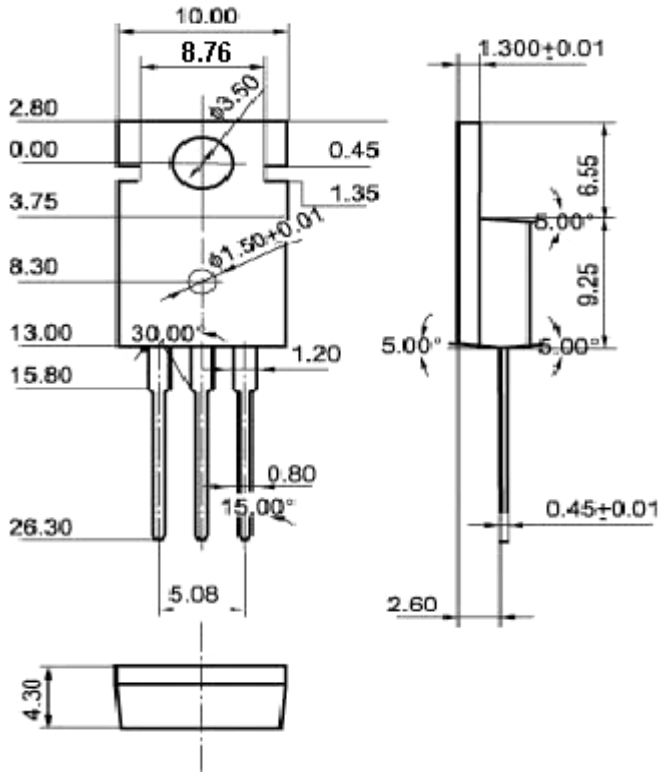


Fig.2 Outline dimensions (unindicated tolerance:±0.10 mm)