

Silicon NPN Power Transistors

2SC2502

DESCRIPTION

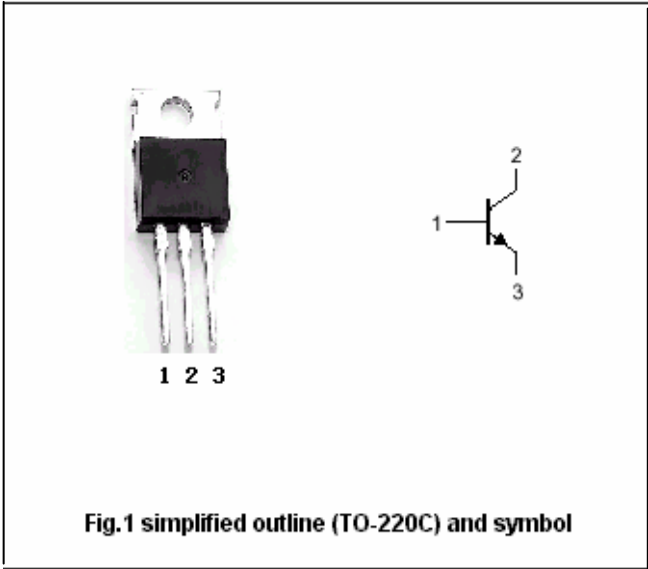
- With TO-220C package
- High breakdown voltage
- High speed switching time

APPLICATIONS

- For use in high-voltage,high-speed ,power switching in inductive circuit.

PINNING

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



Absolute maximum ratings(Ta=25°C)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V _{CBO}	Collector-base voltage	Open emitter	500	V
V _{CEO}	Collector-emitter voltage	Open base	400	V
V _{EBO}	Emitter-base voltage	Open collector	7	V
I _C	Collector current		6	A
I _{CM}	Collector current-peak		12	A
I _B	Base current		2	A
P _C	Collector dissipation	T _C =25°C	50	W
T _j	Junction temperature		150	°C
T _{stg}	Storage temperature		-55~150	°C

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
R _{th j-c}	Thermal resistance junction case	2.5	°C/W

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CHARACTERISTICS

Tj=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{CEO(SUS)}$	Collector-emitter sustaining voltage	$I_C=100mA$; $I_B=0$	400			V
V_{CEsat}	Collector-emitter saturation voltage	$I_C=3A$; $I_B=0.3A$			0.7	V
V_{BEsat}	Base-emitter saturation voltage	$I_C=3A$; $I_B=0.3A$			1.5	V
I_{CEO}	Collector cut-off current	$V_{CE}=320V$; $I_B=0$			100	μA
I_{CBO}	Collector cut-off current	$V_{CB}=500V$; $I_E=0$			100	μA
I_{EBO}	Emitter cut-off current	$V_{EB}=7V$; $I_C=0$			1	mA
h_{FE-1}	DC current gain	$I_C=3A$; $V_{CE}=2V$	15			
h_{FE-2}	DC current gain	$I_C=6A$; $V_{CE}=2V$	8			
f_T	Transition frequency	$I_C=0.6A$; $V_{CE}=10V$; $f=1MHz$	10			MHz
Switching times						
t_{on}	Turn-on time	$I_C=3A$ $I_{B1}=-I_{B2}=0.6A$; $R_L=10\Omega$, $V_{CC}=30V$			1.0	μs
t_{stg}	Storage time				3.0	μs
t_f	Fall time				0.7	μs

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PACKAGE OUTLINE

