

Silicon NPN Power Transistors

BU505

DESCRIPTION

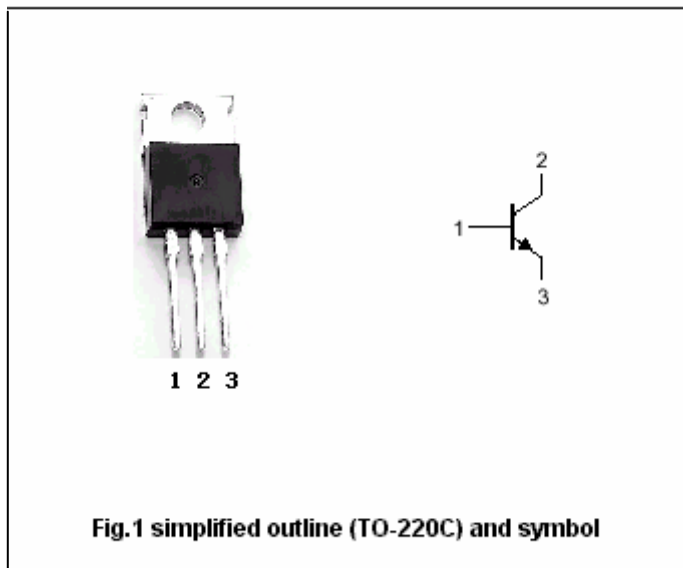
- With TO-220C package
- High voltage,high speed-switching

APPLICATIONS

- For horizontal deflection circuits of color TV receivers

PINNING

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

ABSOLUTE MAXIMUM RATINGS($T_a=25^\circ\text{C}$)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	Open emitter	1500	V
V_{CEO}	Collector-emitter voltage	Open base	700	V
V_{EBO}	Emitter-base voltage	Open collector	5	V
I_C	Collector current		2.5	A
I_{CM}	Collector current (peak)		4	A
I_B	Base current		1	A
I_{BM}	Base current(peak)		2	A
P_{tot}	Total power dissipation	$T_C=25^\circ\text{C}$	75	W
T_j	Max.operating junction temperature		150	$^\circ\text{C}$
T_{stg}	Storage temperature		-65~150	$^\circ\text{C}$

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-case}$	Thermal resistance junction case	1.67	$^\circ\text{C}/\text{W}$

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CHARACTERISTICS

T_j=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{CEO(SUS)}	Collector-emitter sustaining voltage	I _C =0.1 A ; I _B =0; L=25mH	700			V
V _{CEsat}	Collector-emitter saturation voltage	I _C =2A ; I _B =0.9 A			5.0	V
V _{BEsat}	Base-emitter saturation voltage	I _C =2A ; I _B =0.9 A			1.3	V
h _{FE}	DC current gain	I _C =0.1A ; V _{CE} =5V	6		30	
I _{CES}	Collector cut-off current	V _{CE} =1500V; V _{BE} =0; T _C =125°C			0.15 1.0	mA
I _{EBO}	Emitter cut-off current	V _{EB} =5V; I _C =0			1.0	mA
f _T	Transition frequency	I _C =0.1A ; V _{CE} =5V		7		MHz
I _{s/b}	Second breakdown current	V _{CE} =120V; t=200μs	2			A

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PACKAGE OUTLINE



Fig.2 Outline dimensions (unindicated tolerance: 0.1mm)