

Silicon PNP Power Transistors

D45C Series

DESCRIPTION

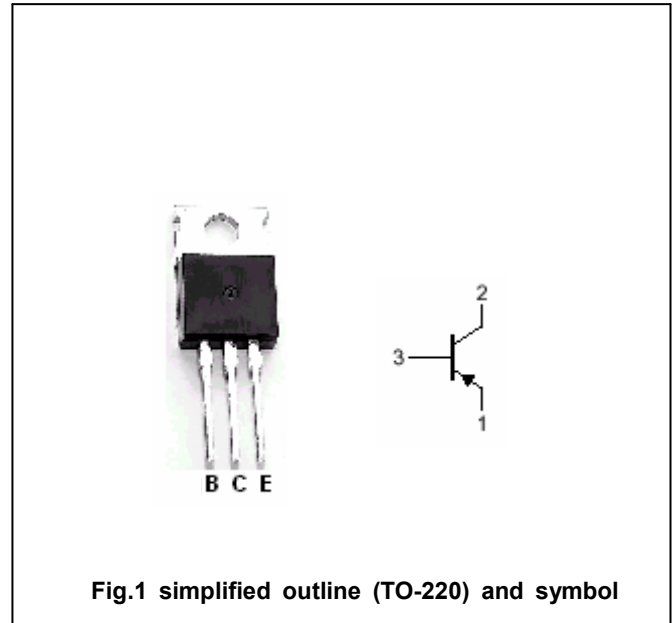
- With TO-220 package
- Complement to type D44C Series
- Very low collector saturation voltage
- Fast switching

APPLICATIONS

- Designed for various specific and general purpose application
- Shunt and switching regulators
- Low and high frequency inverters converters and etc.

PINNING

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



Absolute maximum ratings (Ta=25°C)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT	
V _{CBO}	Collector-base voltage	Open emitter	D45C1,2,3	-40	V
			D45C4,5,6	-55	
			D45C7,8,9	-70	
			D45C10,11,12	-90	
V _{CEO}	Collector-emitter voltage	Open base	D45C1,2,3	-30	V
			D45C4,5,6	-45	
			D45C7,8,9	-60	
			D45C10,11,12	-80	
V _{EBO}	Emitter-base voltage	Open collector	-5	V	
I _C	Collector current (DC)		-4	A	
I _{CM}	Collector current -peak		-6	A	
I _B	Base current (DC)		-1	A	
P _D	Total power dissipation	T _C =25°C	30	W	
T _j	Junction temperature		150	°C	
T _{stg}	Storage temperature		-55~150	°C	

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CHARACTERISTICS

T_j=25 °C unless otherwise specified

SYMBOL	PARAMETER		CONDITIONS	MIN	TYP.	MAX	UNIT
V _{CEsat}	Collector-emitter saturation voltage	D45C2,3,5,6,8,9,11,12	I _C =-1A ; I _B =-50mA			-0.5	V
		D45C1,4,7,10	I _C =-1A ; I _B =-0.1A				
V _{BEsat}	Base-emitter saturation voltage		I _C =-1A ; I _B =-0.1A			-1.3	V
I _{CES}	Collector cut-off current		V _{CE} =Rated V _{CES}			-100	μA
I _{EBO}	Emitter cut-off current		V _{EB} =-5V; I _C =0			-10	μA
h _{FE-1}	DC current gain	D45C2,3,5,6,8,9,11,12	I _C =-0.2A ; V _{CE} =-1V	40		120	
		D45C1,4,7,10		25			
h _{FE-2}	DC current gain	D45C1,4,7,10	I _C =-1A ; V _{CE} =-1V	10			
		D45C2,5,8,11		20			
		D45C3,6,9,12	I _C =-2A ; V _{CE} =-1V	20			
f _T	Transition frequency		I _C =-20mA; V _{CE} =-4V; f=1.0MHz		40		MHz

Switching times

t _r	Rise time	I _C =-1.0A; V _{CC} =-20V I _{B1} =-I _{B2} =-0.1A			0.2	μs
t _s	Storage time				0.6	μs
t _f	Fall time				0.3	μs

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PACKAGE OUTLINE

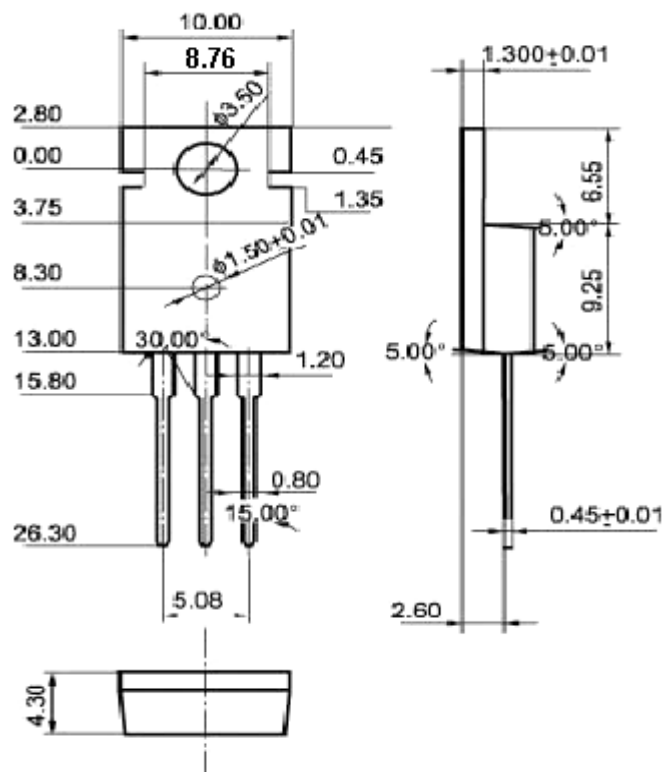


Fig.2 outline dimensions (unindicated tolerance: ±0.10 mm)