

SavantIC Semiconductor

Product Specification

Silicon NPN Power Transistors

BDV65/65A/65B/65C

DESCRIPTION

- With TO-3PN package
- Complement to type BDV64/64A/64B/64C
- DARLINGTON
- High DC current gain

APPLICATIONS

- For use in general purpose amplifier applications.

PINNING

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

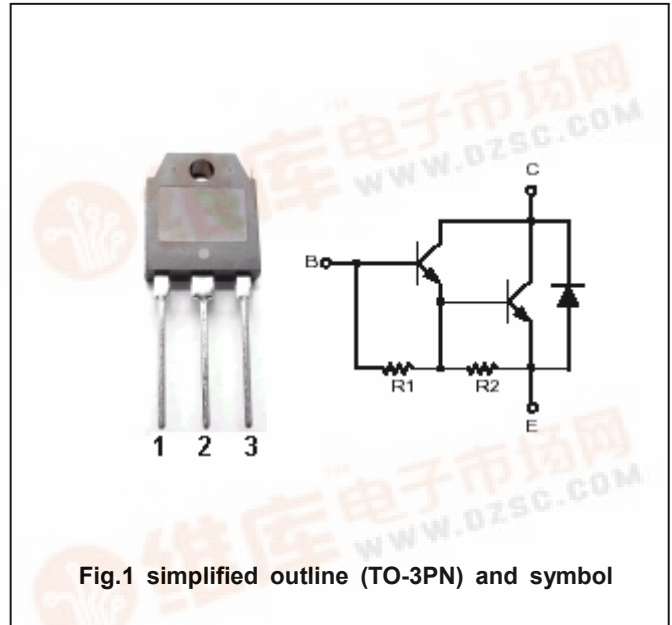


Fig.1 simplified outline (TO-3PN) and symbol

Absolute maximum ratings(Tc=25°C)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT	
V _{CBO}	Collector-base voltage	Open emitter	BDV65	60	V
			BDV65A	80	
			BDV65B	100	
			BDV65C	120	
V _{CEO}	Collector-emitter voltage	Open base	BDV65	60	V
			BDV65A	80	
			BDV65B	100	
			BDV65C	120	
V _{EBO}	Emitter-base voltage	Open collector	5	V	
I _C	Collector current		12	A	
I _{CM}	Collector current-peak		15	A	
I _B	Base current		0.5	A	
P _C	Collector power dissipation	T _C =25°C	125	W	
		T _a =25°C	3.5		
T _j	Junction temperature		150	°C	
T _{stg}	Storage temperature		-65~150	°C	

Silicon NPN Power Transistors

BDV65/65A/65B/65C

CHARACTERISTICS

T_j=25 °C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{(BR)CEO}	Collector-emitter breakdown voltage	BDV65	I _C =30mA, I _B =0			V
		BDV65A				
		BDV65B				
		BDV65C				
V _{CEsat}	Collector-emitter saturation voltage	I _C =5A, I _B =20mA			2.0	V
V _{BE}	Base-emitter on voltage	I _C =5A; V _{CE} =4V			2.5	V
I _{CBO}	Collector cut-off current	BDV65	V _{CB} =60V, I _E =0 V _{CB} =30V, I _E =0; T _C =150 °C			mA
		BDV65A				
		BDV65B				
		BDV65C				
I _{CEO}	Collector cut-off current	BDV65	V _{CE} =30V, I _B =0			2
		BDV65A				
		BDV65B				
		BDV65C				
I _{EBO}	Emitter cut-off current	V _{EB} =5V; I _C =0			5	mA
h _{FE}	DC current gain	I _C =5A; V _{CE} =4V	1000			
V _{EC}	Diode forward voltage	I _E =10A			3.5	V

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
R _{th j-c}	Thermal resistance junction to case	1.0	°C/W

Silicon NPN Power Transistors

BDV65/65A/65B/65C

PACKAGE OUTLINE

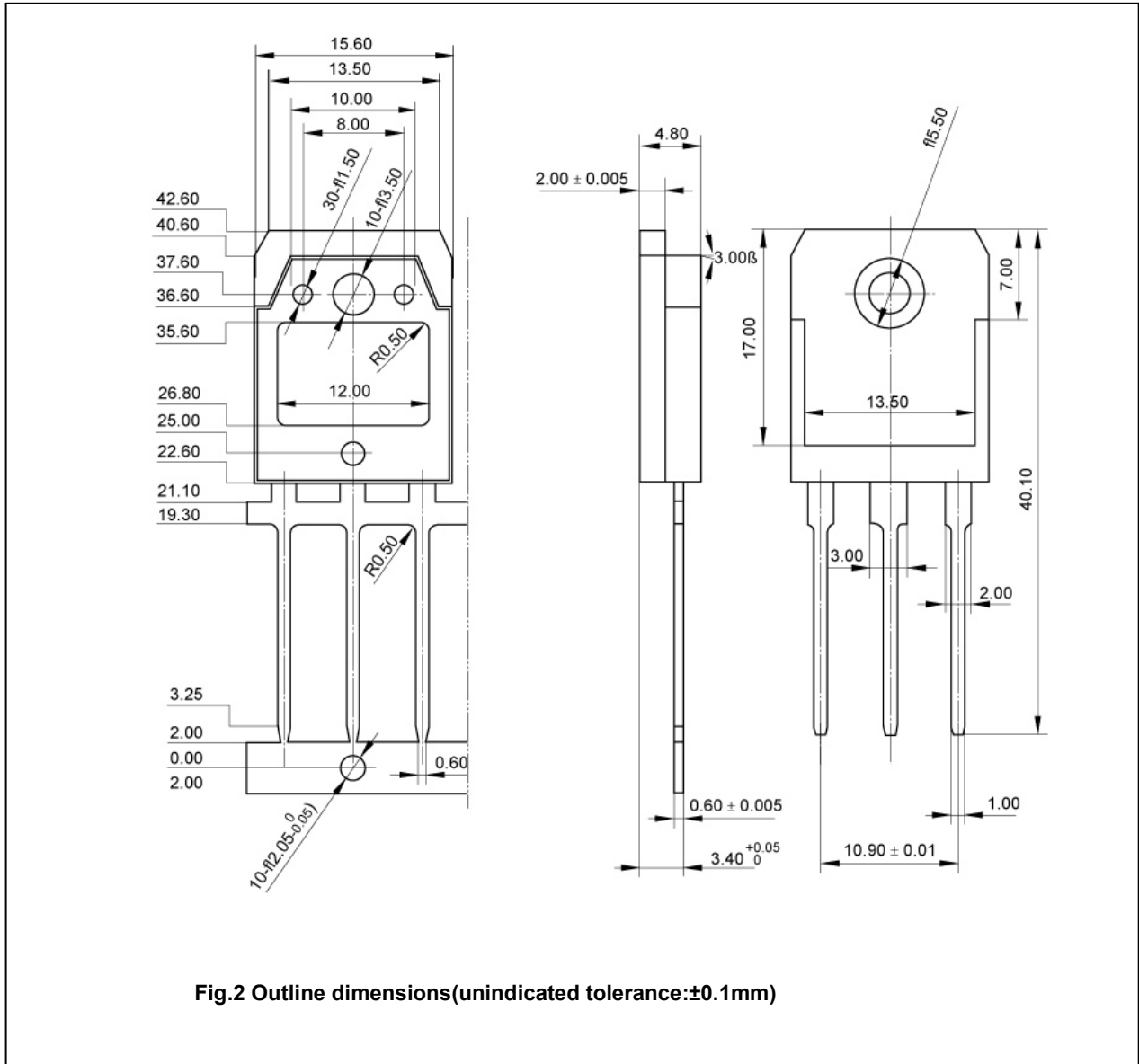


Fig.2 Outline dimensions(unindicated tolerance:±0.1mm)