

Silicon NPN Power Transistors

BDV67/67A/67B/67C/67D

DESCRIPTION

- With TO-3PN package
- Complement to type BDV66/66A/66B/66C/66D
- DARLINGTON
- High DC current gain

APPLICATIONS

- For use in audio output stages and general amplifier and switching applications.

PINNING

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

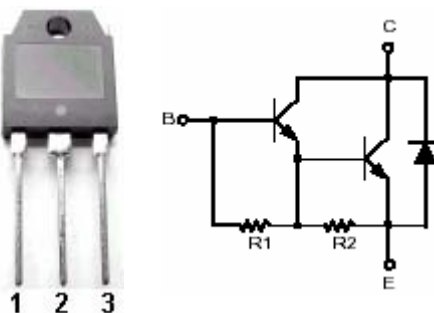


Fig.1 simplified outline (TO-3PN) and symbol

Absolute maximum ratings($T_c=25^\circ\text{C}$)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	Open emitter	80	V
			100	
			120	
			140	
			160	
V_{CEO}	Collector-emitter voltage	Open base	60	V
			80	
			100	
			120	
			150	
V_{EBO}	Emitter-base voltage	Open collector	5	V
I_C	Collector current		16	A
I_{CM}	Collector current-peak		20	A
I_B	Base current		0.5	A
P_C	Collector power dissipation	$T_c=25^\circ\text{C}$	200	W
T_j	Junction temperature		150	$^\circ\text{C}$
T_{stg}	Storage temperature		-65~150	$^\circ\text{C}$

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CHARACTERISTICS

T_j=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{(BR)CEO}	Collector-emitter breakdown voltage	BDV67	60			V
		BDV67A	80			
		BDV67B	100			
		BDV67C	120			
		BDV67D	150			
V _{CEsat}	Collector-emitter saturation voltage	I _C =10A, I _B =40mA			2.0	V
V _{BE}	Base-emitter on voltage	I _C =10A; V _{CE} =3V			2.5	V
I _{CBO}	Collector cut-off current	V _{CB} =V _{CB0max} , I _E =0 V _{CB} =1/2V _{CB0max} ; T _j =150°C			1.0 4.0	mA
I _{CEO}	Collector cut-off current	V _{CE} =1/2V _{CE0max} , I _B =0			1	mA
I _{EBO}	Emitter cut-off current	V _{EB} =5V; I _C =0			5	mA
h _{FE-1}	DC current gain	I _C =1A; V _{CE} =3V		3000		
h _{FE-2}	DC current gain	I _C =10A; V _{CE} =3V	1000			
h _{FE-3}	DC current gain	I _C =16A; V _{CE} =3V		1000		
C _C	Collector capacitance	I _E =0; V _{CB} =10V; f=1MHz		300		pF
V _F	Diode forward voltage	I _E =10A			3.0	V
t _{on}	Turn-on time	I _C = 10 A, I _{B1} = -I _{B2} =40 mA V _{CC} = 12V		1.0		μs
t _{off}	Turn-off time			3.5		μs

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
R _{th j-mb}	Thermal resistance junction to mounting base	0.625	K/W

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PACKAGE OUTLINE

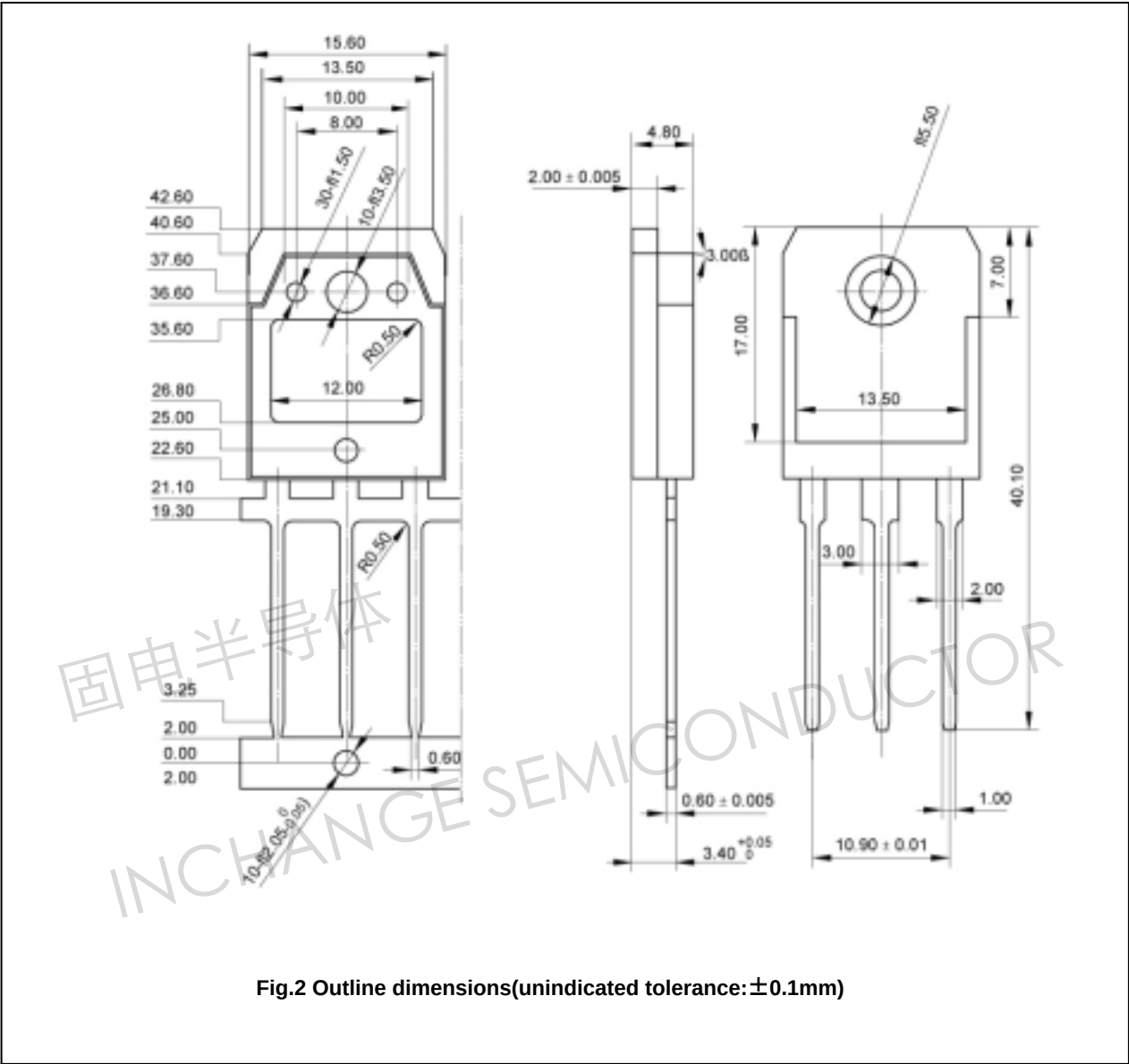


Fig.2 Outline dimensions(unindicated tolerance:±0.1mm)