

SavantIC Semiconductor

Product Specification

Silicon PNP Power Transistors

BD242/A/B/C

DESCRIPTION

- With TO-220C package
- Complement to type BD241/A/B/C

APPLICATIONS

- For medium power linear and switching applications

PINNING

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



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

SYMBOL	PARAMETER		CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	BD242	Open emitter	-55	V
		BD242A		-70	
		BD242B		-90	
		BD242C		-115	
V_{CEO}	Collector-emitter voltage	BD242	Open base	-45	V
		BD242A		-60	
		BD242B		-80	
		BD242C		-100	
V_{EBO}	Emitter-base voltage		Open collector	-5	V
I_C	Collector current			-3	A
I_{CM}	Collector current-peak			-5	A
I_B	Base current			-1	A
P_C	Collector power dissipation		$T_C=25^\circ\text{C}$	40	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 _{CEO(SUS)}	Collector-emitter sustaining voltage	BD242	I _C =30mA; I _B =0	-45			V
		BD242A		-60			
		BD242B		-80			
		BD242C		-100			
V _{CEsat}	Collector-emitter saturation voltage		I _C =-3A; I _B =-0.6 A			-1.2	V
V _{BE}	Base-emitter on voltage		I _C =-3A ; V _{CE} =-4V			-1.8	V
I _{CEO}	Collector cut-off current	BD242/A	V _{CE} =-30V; I _B =0			-0.3	mA
		BD242B/C	V _{CE} =-60V; I _B =0				
I _{CES}	Collector cut-off current	BD242	V _{CE} =-45V; V _{BE} =0			-0.2	mA
		BD242A	V _{CE} =-60V; V _{BE} =0				
		BD242B	V _{CE} =-80V; V _{BE} =0				
		BD242C	V _{CE} =-100V; V _{BE} =0				
I _{EBO}	Emitter cut-off current		V _{EB} =-5V; I _C =0			-1	mA
h _{FE-1}	DC current gain		I _C =-1A ; V _{CE} =-4V	25			
h _{FE-2}	DC current gain		I _C =-3A ; V _{CE} =-4V	10			

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PACKAGE OUTLINE

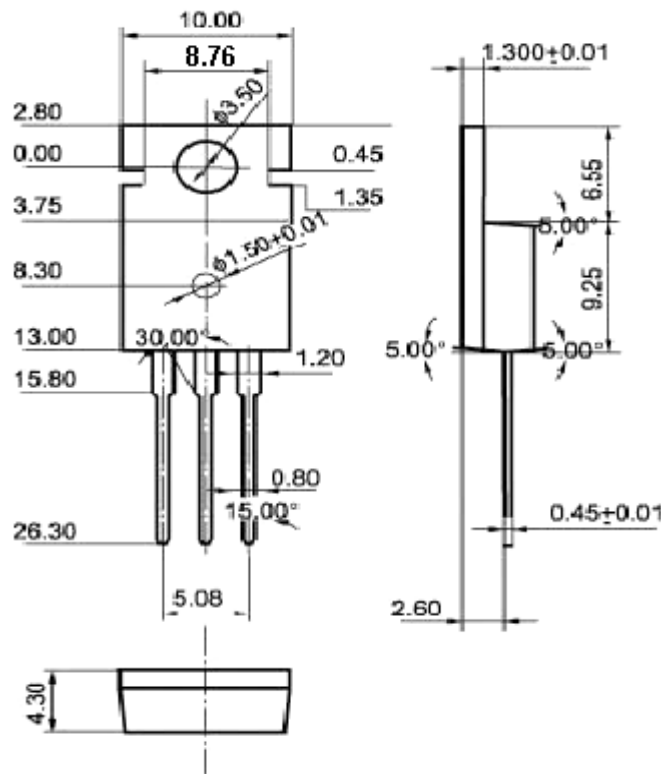


Fig.2 Outline dimensions (unindicated tolerance:±0.10 mm)