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Silicon NPN Power Transistors — BD433/435/437

DESCRIPTION

·With TO-126 package
·Complement to type BD434/436/438

APPLICATIONS

·For medium power linear and switching applications

PINNING

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

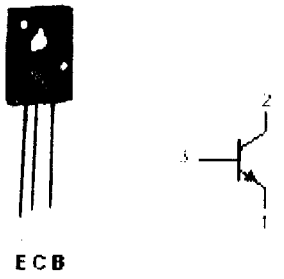

Fig.1 simplified outline (TO-126) and symbol

Absolute maximum ratings (Ta=25□)

SYMBOL	PARAMETER		CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	BD433	Open emitter	22	V
		BD435		32	
		BD437		45	
V_{CEO}	Collector-emitter voltage	BD433	Open base	22	V
		BD435		32	
		BD437		45	
V_{EBO}	Emitter -base voltage		Open collector	5	V
I_C	Collector current (DC)			4	A
I_{CM}	Collector current-Peak			7	A
I_B	Base current			1	A
P_C	Collector power dissipation		T_C=25L	36	W
T_j	Junction temperature			150	L
T_{stg}	Storage temperature			-65~150	L

CHARACTERISTICS

Tj=25□ unless otherwise specified

SYMBOL	PARAMETER		CONDITIONS	MIN	TYP.	MAX	UNIT
V_{CEsat}	Collector-emitter saturation voltage	BD433/435	I_C=2A; I_B=0.2A		0.2	0.5	V
		BD437				0.6	
V_{BE}	Base-emitter on voltage	BD433/435	I_C=2A ; V_{CE}=1V			1.1	V
		BD437				1.2	
$V_{CEO(SUS)}$	Collector-emitter sustaining voltage	BD433	I_C=0.1A; I_B=0	22			V
		BD435		32			
		BD437		45			
I_{CES}	Collector cut-off current	BD433	V_{CB}=22V; I_E=0			100	μA
		BD435	V_{CB}=32V; I_E=0				
		BD437	V_{CB}=45V; I_E=0				
I_{CES}	Collector cut-off current	BD433	V_{CE}=22V; V_{BE}=0			100	μA
		BD435	V_{CE}=32V; V_{BE}=0				
		BD437	V_{CE}=45V; V_{BE}=0				
I_{EBO}	Emitter cut-off current		V_{EB}=5V; I_C=0			1	mA
h_{FE-1}	DC current gain	BD433/435	I_C=10mA ; V_{CE}=5V	40		130	
		BD437		30			
h_{FE-2}	DC current gain		I_C=0.5A ; V_{CE}=1V	85		140	
h_{FE-3}	DC current gain	BD433/435	I_C=2A ; V_{CE}=1V	50			
		BD437		40			
f_T	Transition frequency		I_C=250mA; V_{CE}=1V	3			MHz