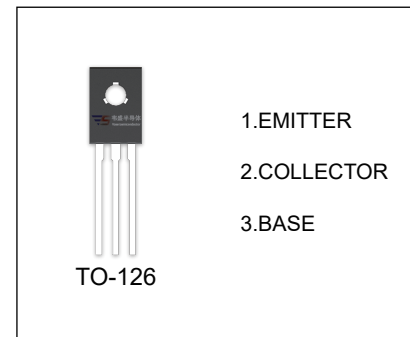


BD433 / BD435 / BD437 TRANSISTOR (NPN)

FEATURES

- Amplifier and Switching Applications
- Complement To BD434, BD436 And BD438


ORDERING INFORMATION

Part Number	Package	Packing Method	Pack Quantity
BD433	TO-126	Bulk	200pcs/Bag
BD435	TO-126	Bulk	200pcs/Bag
BD437	TO-126	Bulk	200pcs/Bag
BD433-TU	TO-126	Tube	60pcs/Tube
BD435-TU	TO-126	Tube	60pcs/Tube
BD437-TU	TO-126	Tube	60pcs/Tube

MAXIMUM RATINGS (T_a=25°C unless otherwise noted)

Symbol	Parameter	Value	Unit
V_{CBO}	Collector-Base Voltage	BD433	22
		BD435	32
		BD437	45
V_{CEO}	Collector-Emitter Voltage	BD433	22
		BD435	32
		BD437	45
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current –Continuous	4	A
P_C	Collector Power Dissipation	1.25	W
T_J, T_{stg}	Operation Junction and Storage Temperature Range	-55-150	°C

T_a=25 °C unless otherwise specified

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=100\mu A, I_E=0$	BD433	22		V
			BD435	32		
			BD437	45		
Collector-emitter breakdown voltage	$V_{CE(SUS)}^{(1)}$	$I_C=100mA, I_B=0$	BD433	22		V
			BD435	32		
			BD437	45		
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=100\mu A, I_C=0$	5			V
Collector cut-off current	I_{CBO}	$V_{CB}=22V, I_E=0$	BD433		100	μA
		$V_{CB}=32V, I_E=0$	BD435			
		$V_{CB}=45V, I_E=0$	BD437			
Collector cut-off current	I_{CEO}	$V_{CE}=22V, I_E=0$	BD433		100	μA
		$V_{CE}=32V, I_E=0$	BD435			
		$V_{CE}=45V, I_E=0$	BD437			
Emitter cut-off current	I_{EBO}	$V_{EB}=5V, I_E=0$			1	mA
DC current gain	$h_{FE(1)}^{(1)}$	$V_{CE}=1V, I_C=500mA$		85		375
	$h_{FE(2)}^{(1)}$	$V_{CE}=5V, I_C=10mA$	BD433/BD435 BD437	40 30		
	$h_{FE(3)}^{(1)}$	$V_{CE}=1V, I_C=2A$	BD433/BD435 BD437	50 40		
Collector-emitter saturation voltage	$V_{CE(sat)}^{(1)}$	$I_C=2A, I_B=0.2A$	BD433/BD435 BD437		0.5 0.6	V
Base-emitter voltage	$V_{BE}^{(1)}$	$V_{CE}=1V, I_C=2A$	BD433/BD435 BD437		1.1 1.2	V
Transition frequency	f_T	$V_{CE}=1V, I_C=250mA$		3		MHz

(1)Pulse test.