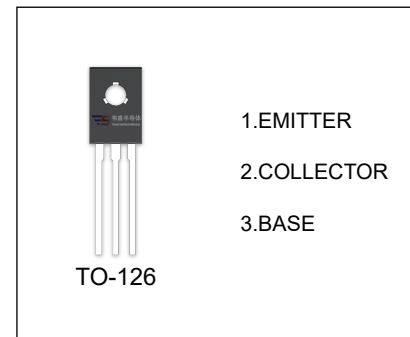


BD440 / BD442 TRANSISTOR (PNP)

FEATURES

- Amplifier and Switching Applications
- Complement To BD439, BD441



ORDERING INFORMATION

Part Number	Package	Packing Method	Pack Quantity
BD440	TO-126	Bulk	200pcs/Bag
BD442	TO-126	Bulk	200pcs/Bag
BD440-TU	TO-126	Tube	60pcs/Tube
BD442-TU	TO-126	Tube	60pcs/Tube

MAXIMUM RATINGS($T_a=25^{\circ}\text{C}$ unless otherwise noted)

Symbol	Parameter		Value	Units
V_{CBO}	Collector-Base Voltage	BD440	-60	V
		BD442	-80	
V_{CEO}	Collector-Emitter Voltage	BD440	-60	V
		BD442	-80	
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	$^{\circ}\text{C}$

$T_a=25^\circ\text{C}$

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	BD440 $I_C=-100\mu\text{A}, I_E=0$	-60			V
		BD442	-80			
Collector-emitter breakdown voltage	$V_{CEO(SU_S)}^{(1)}$	BD440 $I_C=-100\text{mA}, I_B=0$	-60			V
		BD442	-80			
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=-100\mu\text{A}, I_C=0$	-5			V
Collector cut-off current	I_{CBO}	BD440 $V_{CB}=-60\text{V}, I_E=0$			-100	μA
		BD442 $V_{CB}=-80\text{V}, I_E=0$				
Emitter cut-off current	I_{EBO}	$V_{EB}=-5\text{V}, I_E=0$			-1	mA
DC current gain	$h_{FE(1)}^{(1)}$	$V_{CE}=-1\text{V}, I_C=-500\text{mA}$	40		475	
	$h_{FE(2)}^{(1)}$	BD440 $V_{CE}=-5\text{V}, I_C=-10\text{mA}$ BD442	20 15			
	$h_{FE(3)}^{(1)}$	BD440 $V_{CE}=-1\text{V}, I_C=-2\text{A}$ BD442	25 15			
Collector-emitter saturation voltage	$V_{CE(sat)}^{(1)}$	$I_C=-3\text{A}, I_B=-0.3\text{A}$			-0.8	V
Base-emitter voltage	$V_{BE}^{(1)}$	$V_{CE}=-1\text{V}, I_C=-2\text{A}$			-1.5	V
Transition frequency	f_T	$V_{CE}=-1\text{V}, I_C=-250\text{mA}$	3			MHz

⁽¹⁾Pulse test

Static Characteristic
