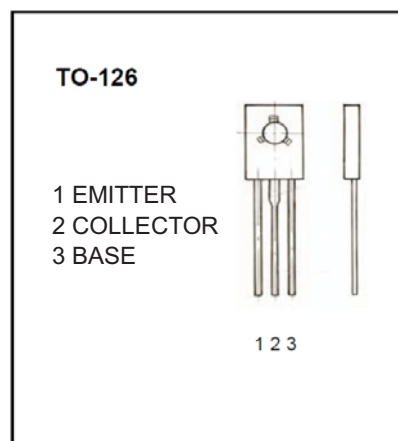


NPN Epitaxial Silicon Transistor

BD435

■ Features

- Medium Power Linear and Switching Applications



■ Absolute Maximum Ratings $T_a = 25^\circ\text{C}$

Parameter	Symbol	Rating	Unit
Collector-base voltage	V_{CB0}	32	V
Collector-emitter voltage	V_{CEO}	32	V
Emitter-base voltage	V_{EB0}	5	V
Collector current (DC)	I_C	4	A
Collector current (Pulse)	I_{CP}	7	A
Base current	I_B	1	A
Collector dissipation	P_C	36	W
Junction temperature	T_j	150	$^\circ\text{C}$
Storage temperature range	T_{stg}	-65 to +150	$^\circ\text{C}$

■ Electrical Characteristics $T_a = 25^\circ\text{C}$

Parameter	Symbol	Testconditions	Min	Typ	Max	Unit
Collector-emitterSustainingVoltage	$V_{CEO(SUS)}$	$I_C = 100\text{ mA}, I_B = 0$	32			V
CollectorCut-offCurrent	I_{CBO}	$V_{CB} = 32\text{ V}, I_E = 0$			100	μA
CollectorCut-offCurrent	I_{CEO}	$V_{CE} = 32\text{ V}, V_{BE} = 0$			100	μA
EmitterCut-offCurrent	I_{EBO}	$V_{EB} = 5\text{ V}, I_C = 0$			1	mA
DCCurrentGain	h_{FE}	$V_{CE} = 5\text{ V}, I_C = 10\text{mA}$	40	130		
		$V_{CE} = 1\text{ V}, I_C = 500\text{mA}$	85	140		
		$V_{CE} = 1\text{ V}, I_C = 2\text{ A}$	50			
Collector-emittersaturationvoltage	$V_{CE(sat)}$	$I_C = 2\text{ A}, I_B = 0.2\text{A}$		0.2	0.5	V
Base-EmitterONVoltage	$V_{BE(on)}$	$V_{CE} = 1\text{ V}, I_C = 2\text{ A}$			1.1	V
CurrentGainBandwidthProduct	f_T	$V_{CE} = 1\text{ V}, I_C = 250\text{mA}$	3			MHz