

BD442

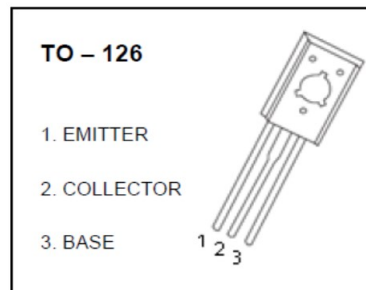
FEATURES

- Complement to BD441
- Package:TO-126

ABSOLUTE MAXIMUM RATINGS

(Ta=25°C unless otherwise noted)

Parameter	Symbol	Value	Units
Collector-Base Voltage	V_{CBO}	-80	V
Collector-Emitter Voltage	V_{CEO}	-80	V
Emitter-Base Voltage	V_{EBO}	-5	V
Collector Current	I_C	-4	A
Collector Peak Current	I_{CM}	-7	A
Base Current	I_B	-1	A
Collector Dissipation	P_C	1.25	W
Junction Temperature	T_j	150	°C
Storage Temperature	T_{STG}	- 55 ~ 150	°C



ELECTRICAL CHARACTERISTICS

(Ta = 25°C unless otherwise noted)

Parameter	Symbol	Test Condition	Min	Max	Unit
Collector-base breakdown voltage	BV_{CBO}	$I_C = -0.1mA, I_E = 0$	-80		V
Collector-emitter sustaining voltage	$V_{CEO(SUS)}$	$I_C = -100mA, I_B = 0$	-80		V
Emitter-base breakdown voltage	BV_{EBO}	$I_E = -0.1mA, I_C = 0$	-5		V
Collector cut-off current	I_{CBO}	$V_{CB} = -80V, I_E = 0$		-0.1	mA
Collector cut-off current	I_{CES}	$V_{CB} = -80V, V_{BE} = 0$		-0.1	mA
Emitter cut-off current	I_{EBO}	$V_{EB} = -5V, I_C = 0$		-1	mA
DC current gain	H_{FE1}	$V_{CE} = -1V, I_C = -500mA$	40	140	
	H_{FE2}	$V_{CE} = -5V, I_C = -10mA$	15		
	H_{FE3}	$V_{CE} = -1V, I_C = -2A$	15		
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = -2A, I_B = -200mA$		-0.8	V
Base-emitter voltage	V_{BE}	$V_{CE} = -1V, I_C = -2A$		-1.2	V
Current Gain Bandwidth Product	f_T	$V_{CE} = -1V, I_C = -250mA$	3		MHz