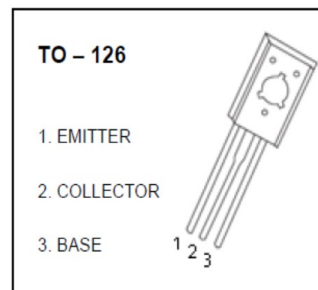


BD140

FEATURES

- Complement to BD139
- 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	-1.5	A
Collector Peak Current	I_{CM}	-3	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	$V_{CEO(SUS)}$	$I_C = -30mA, I_B = 0$	-80		V
Emitter-base breakdown voltage	BV_{EBO}	$I_E = -10uA, I_C = 0$	-5		V
Collector cut-off current	I_{CBO}	$V_{CB} = -60V, I_E = 0$		-0.1	μA
Emitter cut-off current	I_{EBO}	$V_{EB} = -5V, I_C = 0$		-10	μA
DC current gain	H_{FE1}	$V_{CE} = -2V, I_C = -150mA$	40	250	
	H_{FE2}	$V_{CE} = -2V, I_C = -5mA$	25		
	H_{FE3}	$V_{CE} = -2V, I_C = -500mA$	25		
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = -500mA, I_B = -50mA$		-0.5	V
Base-emitter voltage	V_{BE}	$V_{CE} = -2V, I_C = -500mA$		-1	V

CLASSIFICATION OF H_{FE}

Rank	6	10	16
Range	40-100	63-160	100-250