

BD139

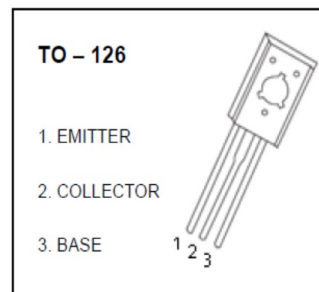
FEATURES

- Complement to BD140
- 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