

BD439

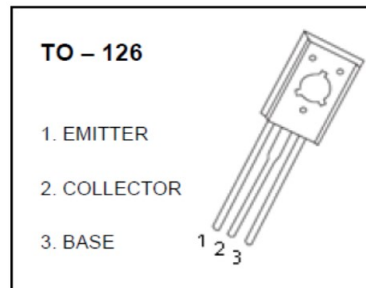
FEATURES

- Complement to BD440
- Package:TO-126

ABSOLUTE MAXIMUM RATINGS

(Ta=25°C unless otherwise noted)

Parameter	Symbol	Value	Units
Collector-Base Voltage	V_{CBO}	60	V
Collector-Emitter Voltage	V_{CEO}	60	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}	$I_C=0.1mA, I_E=0$	60		V
Collector-emitter sustaining voltage	$V_{CEO(SUS)}$	$I_C=100mA, I_B=0$	60		V
Emitter-base breakdown voltage	BV_{EBO}	$I_E=0.1mA, I_C=0$	5		V
Collector cut-off current	I_{CBO}	$V_{CB}=60V, I_E=0$		0.1	mA
Collector cut-off current	I_{CES}	$V_{CB}=60V, V_{BE}=0$		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}	$V_{CE}=5V, I_C=10mA$	20		
	H_{FE3}	$V_{CE}=1V, I_C=2A$	25		
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