

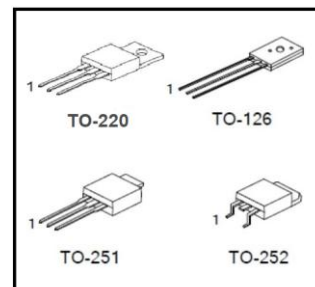
Applications

- energy-saving lamps
- fluorescent lamp electronic ballasts
- other switches and oscillating circuits

Package: TO-126/TO-220/TO-251/252

Maximum Ratings ($T_a = 25^\circ$)

Parameter	Symbol	Rating		Unit
Collector-base voltage	BV_{CBO}	700		V
Collector-emitter voltage	BV_{CEO}	480		V
Emitter-base voltage	BV_{EBO}	9		V
Collector current	I_{CM}	4		A
Collector Power Dissipation	P_C	TO-220	2	W
		TO-126	1.25	
		TO-251/252	1.5	
	P_C ($T_c = 25^\circ$)	TO-220	70	
		TO-126	45	
		TO-251/252	60	
Junction Temperature	T_j	150		$^\circ\text{C}$
Storage Temperature	T_{stg}	$-55 \sim +150$		$^\circ\text{C}$



Pin Assignment			
Package	1	2	3
TO-220	B	C	E
TO-126	B	C	E
TO-251/252	B	C	E

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

Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
Collector-Base Breakdown Voltage	BV_{CBO}	$I_C=0.1\text{mA}$, $I_E=0$	700			V
Collector-Emitter Breakdown Voltage	BV_{CEO}	$I_C=1\text{mA}$, $I_B=0$	480			V
Emitter-Base Breakdown Voltage	BV_{EBO}	$I_E=0.1\text{mA}$, $I_C=0$	9			V
collector-base cut-off current	I_{CBO}	$V_{CB}=670\text{V}$, $I_E=0$			1	μA
collector-emitter cut-off current	I_{CEO}	$V_{CE}=450\text{V}$, $I_B=0$			10	μA
emitter-base cut-off current	I_{EBO}	$V_{EB}=9\text{V}$, $I_C=0$			1	μA
DC current gain	H_{FE}	$V_{CE}=5\text{V}$, $I_B=500\text{mA}$	20		35	
collector-emitter saturation voltage	$V_{CE(SAT)}$	$I_C=2\text{A}$, $I_B=500\text{mA}$			0.5	V
Base-Emitter Saturation Voltage	$V_{BE(SAT)}$	$I_C=2\text{A}$, $I_B=500\text{mA}$			1.2	V
Storage Time	T_S	$I_C=500\text{mA}$	2		4	μs
Transition frequency	f_T	$V_{CE}=10\text{V}$, $I_C=500\text{mA}$	5			MHz

Classification of H_{FE}

Rank	C	D	E
Range	20-25	25-30	30-35