



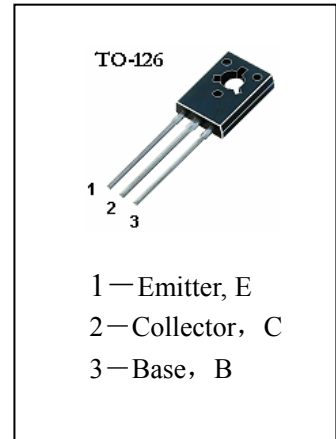
# HSBD234

## ■ APPLICATIONS

Medium Power Linear switching Applications

## ■ ABSOLUTE MAXIMUM RATINGS (T<sub>a</sub>=25°C)

T <sub>stg</sub>	Storage Temperature	.....	-55~150°C
T <sub>j</sub>	Junction Temperature	.....	150°C
P <sub>C</sub>	Collector Dissipation (T <sub>c</sub> =25°C)	.....	25W
V <sub>CBO</sub>	Collector-Base Voltage	.....	-45V
V <sub>CEO</sub>	Collector-Emitter Voltage	.....	-45V
V <sub>CER</sub>	Collector-Emitter Voltage	.....	-45V
V <sub>EBO</sub>	Emitter-Base Voltage	.....	-5V
I <sub>C</sub>	Collector Current (Pulse)	.....	-6A
I <sub>C</sub>	Collector Current (DC)	.....	-2A



## ■ ELECTRICAL CHARACTERISTICS (T<sub>a</sub>=25°C)

Symbol	Characteristics	Min	Typ	Max	Unit	Test Conditions
I <sub>CBO</sub>	Collector Cut-off Current			-100	μ A	V <sub>CB</sub> =-45V, I <sub>E</sub> =0
I <sub>EBO</sub>	Emitter Cut-off Current			-1	mA	V <sub>EB</sub> =-5V, I <sub>C</sub> =0
*H <sub>FE</sub> (1)	DC Current Gain	40				V <sub>CE</sub> =-2V, I <sub>C</sub> =-150mA
*H <sub>FE</sub> (2)	DC Current Gain	25				V <sub>CE</sub> =-2V, I <sub>C</sub> =-1A
*V <sub>CE(sat)</sub>	Collector- Emitter Saturation Voltage			-0.6	V	I <sub>C</sub> =-1A, I <sub>B</sub> =-0.1A
*V <sub>BE(on)</sub>	Base-Emitter On Voltage			-1.3	V	V <sub>CE</sub> =-2V, I <sub>C</sub> =-1A
V <sub>CEO(sus)</sub>	Collector-Emitter Sustaining Voltage	-45			V	I <sub>C</sub> =-100mA, I <sub>B</sub> =0
f <sub>t</sub>	Current Gain-Bandwidth Product	3			MHZ	V <sub>CE</sub> =-10V, I <sub>C</sub> =-250mA,

\* Pulse Test:PW=300 μ S, Duty Cycle=1.5% Pulsed