



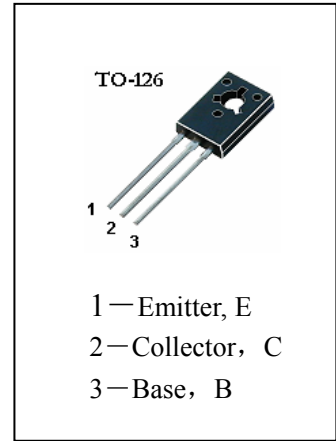
HSBD175

APPLICATIONS

Medium Power Linear switching Applications

ABSOLUTE MAXIMUM RATINGS (T_a=25°C)

T _{stg}	Storage Temperature	-55~150°C
T _j	Junction Temperature	150°C
P _C	Collector Dissipation (T _c =25°C)	30W
V _{CBO}	Collector-Base Voltage	45V
V _{CEO}	Collector-Emitter Voltage	45V
V _{EBO}	Emitter-Base Voltage	5V
I _C	Collector Current (Pulse)	7A
I _C	Collector Current (DC)	3A



ELECTRICAL CHARACTERISTICS (T_a=25°C)

Symbol	Characteristics	Min	Typ	Max	Unit	Test Conditions
ICBO	Collector Cut-off Current			100	μ A	V _{CB} =45V, I _E =0
IEBO	Emitter Cut-off Current			1	mA	V _{EB} =5V, I _C =0
*H _{FE} (1)	DC Current Gain	40		250		V _{CE} =2V, I _C =150mA
*H _{FE} (2)	DC Current Gain	15				V _{CE} =2V, I _C =1A
*V _{CE(sat)}	Collector- Emitter Saturation Voltage			0.8	V	I _C =1A, I _B =0.1A
*V _{BE(on)}	Base-Emitter On Voltage			1.3	V	V _{CE} =2V, I _C =1A
V _{CEO(sus)}	Collector-Emitter Sustaining Voltage	45			V	I _C =100mA, I _B =0
f _t	Current Gain-Bandwidth Product	3			MHz	V _{CE} =10V, I _C =250mA,

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

h_{FE(3)} Classification

Cassification	6	10	16
h _{FE(3)}	40~100	63~160	100~250