

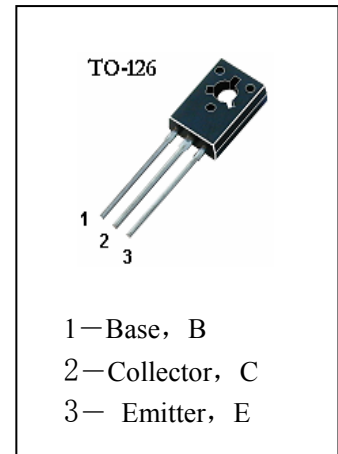


**■ HIGH VOLTAGE SWITCH MODE APPLICATIONS**

High Speed Switching  
 Suitable for Switching Regulator and Motor Control

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

- T<sub>stg</sub>—Storage Temperature..... -65~150°C
- T<sub>j</sub>—Junction Temperature.....150°C
- P<sub>C</sub>—Collector Dissipation.....30W
- V<sub>CBO</sub>—Collector-Base Voltage.....600V
- V<sub>CEO</sub>—Collector-Emitter Voltage.....400V
- V<sub>EBO</sub>—Emitter-Base Voltage.....9V
- I<sub>C</sub>—Collector Current.....1.5A



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

Symbol	Characteristics	Min	Typ	Max	Unit	Test Conditions
BVCBO	Collector-Base Breakdown Voltage	600			V	I <sub>C</sub> =1mA, I <sub>E</sub> =0
BVCEO	Collector-Emitter Breakdown Voltage	400			V	I <sub>C</sub> =10mA, I <sub>B</sub> =0
BVEBO	Emitter-Base Breakdown Voltage	9			V	I <sub>E</sub> =1mA, I <sub>C</sub> =0
h <sub>FE</sub>	DC Current Gain	10		40		V <sub>CE</sub> =10V, I <sub>C</sub> =0.1A
V <sub>CE(sat)1</sub>	Collector- Emitter Saturation Voltage			0.8	V	I <sub>C</sub> =1A, I <sub>B</sub> =500mA
V <sub>CE(sat)2</sub>	Collector- Emitter Saturation Voltage			0.8	V	I <sub>C</sub> =0.5A, I <sub>B</sub> =100mA
V <sub>BE(sat)</sub>	Base-Emitter Saturation Voltage			1.2	V	I <sub>C</sub> =0.5A, I <sub>B</sub> =100mA
I <sub>CBO</sub>	Collector Cut-off Current			10	μ A	V <sub>CB</sub> =500V, I <sub>E</sub> =0
I <sub>EBO</sub>	Emitter-Base Cut-off Current			10	μ A	V <sub>EB</sub> =9V, I <sub>C</sub> =0
f <sub>T</sub>	Current Gain-Bandwidth Product	8			MHz	V <sub>CE</sub> =10V, I <sub>C</sub> =0.1A, f=1MHz
t <sub>ON</sub>	Turn On Time			1.1	μ s	V <sub>CC</sub> =125V, I <sub>C</sub> =1A, I <sub>B1</sub> =0.2A, I <sub>B2</sub> =-0.2A R <sub>L</sub> =125 Ω
t <sub>STG</sub>	Storage Time			4.0	μ s	
t <sub>F</sub>	Fall Time			0.7	μ s	

**■ h<sub>FE</sub> Classification**

H1	H2	H3	H4	H5
10-16	14-21	19-26	24-31	29-40