



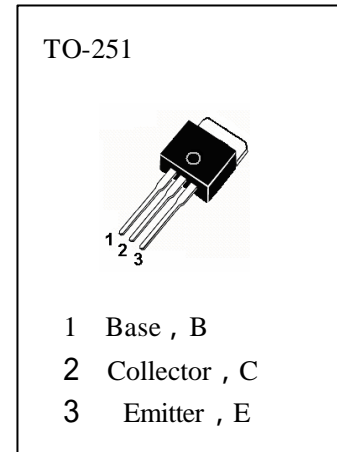
HIGH VOLTAGE SWITCH MODE APPLICATIONS

High Speed Switching

Suitable for Switching Regulator and Motor Control

ABSOLUTE MAXIMUM RATINGS ($T_a=25$)

- T_{stg} —Storage Temperature..... -65~150
- T_j —Junction Temperature.....150
- P_C —Collector Dissipation.....10W
- V_{CBO} —Collector-Base Voltage.....600V
- V_{CEO} —Collector-Emitter Voltage.....400V
- V_{EBO} —Emitter-Base Voltage.....9V
- I_C —Collector Current.....1.5A



ELECTRICAL CHARACTERISTICS ($T_a=25$)

Symbol	Characteristics	Min	Typ	Max	Unit	Test Conditions
BVCBO	Collector-Base Breakdown Voltage	600			V	$I_C=1mA, I_E=0$
BVCEO	Collector-Emitter Breakdown Voltage	400			V	$I_C=10mA, I_B=0$
BVEBO	Emitter-Base Breakdown Voltage	9			V	$I_E=1mA, I_C=0$
h_{FE}	DC Current Gain	10		40		$V_{CE}=10V, I_C=0.1A$
$V_{CE(sat)1}$	Collector- Emitter Saturation Voltage			0.8	V	$I_C=1A, I_B=500mA$
$V_{CE(sat)2}$	Collector- Emitter Saturation Voltage			0.8	V	$I_C=0.5A, I_B=100mA$
$V_{BE(sat)}$	Base-Emitter Saturation Voltage			1.2	V	$I_C=0.5A, I_B=100mA$
I_{CBO}	Collector Cut-off Current			10	μA	$V_{CB}=500V, I_E=0$
I_{EBO}	Emitter-Base Cut-off Current			10	μA	$V_{EB}=9V, I_C=0$
f_T	Current Gain-Bandwidth Product	8			MHz	$V_{CE}=10V, I_C=0.1A, f=1MHz$
t_{ON}	Turn On Time			1.1	μs	$V_{CC}=125V, I_C=1A,$ $I_{B1}=0.2A, I_{B2}=-0.2A$ $R_L=125$
t_{STG}	Storage Time			4.0	μs	
t_F	Fall Time			0.7	μs	

h_{FE} Classification

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

