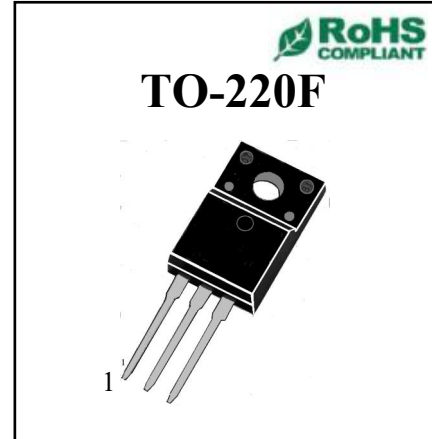


High Voltage Fast-Switching NPN Power Transistor

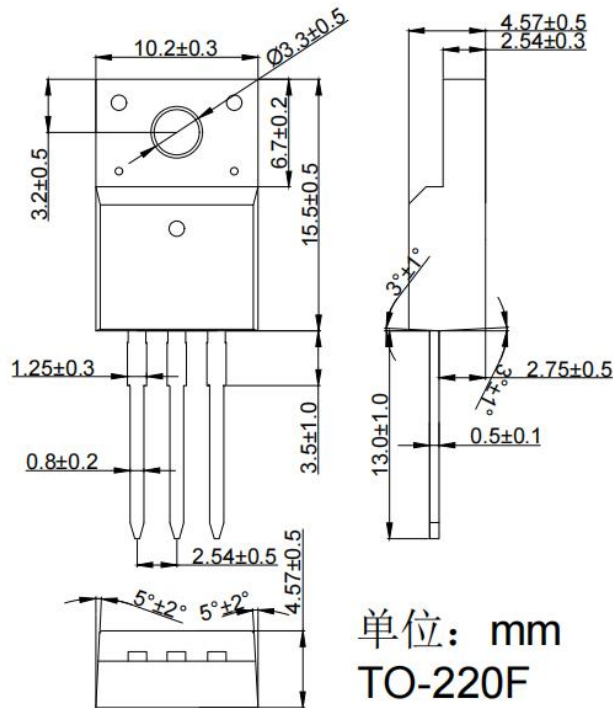
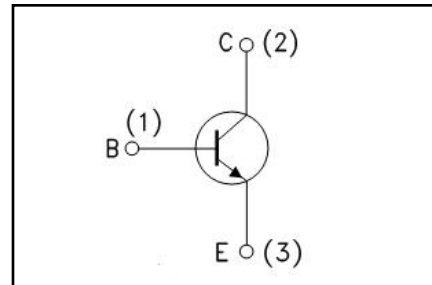
◆ Features:

- ✧ High Switching Speed  
开关速度快
- ✧ Low forward voltage drop  
正向压降低
- ✧ High efficiency and low power loss  
高效低功耗
- ✧ High current surge capability  
大电流浪涌能力强



◆ Applications

- ✧ Electronic Ballast  
电子镇流器
- ✧ Switching Mode Power Supply  
开关电源
- ✧ Motor Controls  
电机控制
- ✧ Solenoid/Relay drivers and Deflection circuits applications  
电磁阀/继电器驱动器和偏转电路应用



**High Voltage Fast-Switching NPN Power Transistor****◆ Absolute Maximum Ratings (Tc=25°C)**

Symbol	Parameters	Ratings	Unit
VCBO	Collector-Base Voltage 集电极 - 基极电压	<b>700</b>	V
VCEO	Collector-Emitter Voltage 集电极 - 发射极电压	<b>400</b>	V
VEBO	Emitter-Base Voltage 发射极 - 基极电压	<b>9</b>	V
I <sub>c</sub>	Collector Current-Continuous 集电极连续电流	<b>6</b>	A
I <sub>B</sub>	Base Current-Continuous 基极连续电流	<b>3</b>	A
PC	Collector Power Dissipation 耗散功率	<b>40</b>	W
T <sub>j</sub>	Max.Operating junction temperature 最大结温	<b>150</b>	°C
T <sub>stg</sub>	Storage Temperature 存储温度	<b>-55 ~ +150</b>	°C
θ <sub>JC</sub>	Junction to Case 结到外壳	<b>2.15</b>	°C/W

◆ **Electrical characteristics** (Tc=25°C unless otherwise noted)

Symbol	Parameters	Min	Typ	Max	Units	Conditions
I <sub>CBO</sub>	Collector Cutoff Current 集电极截止电流	--	--	<b>10</b>	uA	V <sub>CB</sub> =700V, I <sub>B</sub> =0
I <sub>EBO</sub>	Emitter Cutoff Current 发射极截止电流	--	--	<b>10</b>	μA	V <sub>EB</sub> =9V, I <sub>C</sub> =0
BV <sub>CEO</sub>	Collector Emitter Sustaining voltage(Note 1) 集电极发射极持续电压	<b>400</b>	--	--	V	I <sub>C</sub> =1mA, I <sub>B</sub> =0
V <sub>CE(sat)</sub>	Collector Emitter Saturation Voltage(Note 1) 集电极发射极饱和电压	--	<b>0.3</b>	<b>1.0</b>	V	I <sub>C</sub> =3A, I <sub>B</sub> =0.6A
V <sub>BE(sat)</sub>	Base-Emitter Saturation Voltage(Note 1) 基极发射极饱和电压	--	<b>1.0</b>	<b>1.5</b>	V	I <sub>C</sub> =2A, I <sub>B</sub> =0.4A
h <sub>FE</sub>	DC Current Gain(Note 1) 直流电流增益	<b>15</b>	--	<b>30</b>		I <sub>C</sub> =2A, V <sub>CE</sub> =5V
f <sub>T</sub>	Current-Gain—Bandwidth 电流增益带宽	<b>4</b>	--	--	MHz	V <sub>CE</sub> =10V, I <sub>C</sub> =0.5A, f=1MHz
T <sub>s</sub>	Period of storage 贮存时间	<b>2</b>	--	<b>8</b>	us	I <sub>C</sub> =500mA, UI9600
T <sub>r</sub>	Up time 上升时间	--	--	<b>1</b>	us	
T <sub>f</sub>	Drop-out time 下降时间	--	--	<b>1</b>	us	

Note 1: Pulse test: PW ≤ 300us, duty cycle ≤ 2%.