

High Voltage Fast-Switching NPN Power Transistor

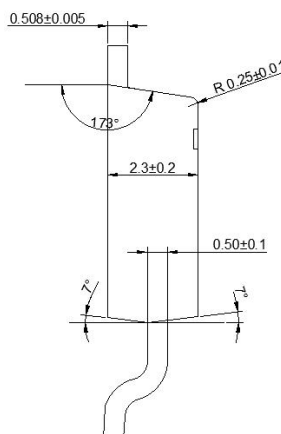
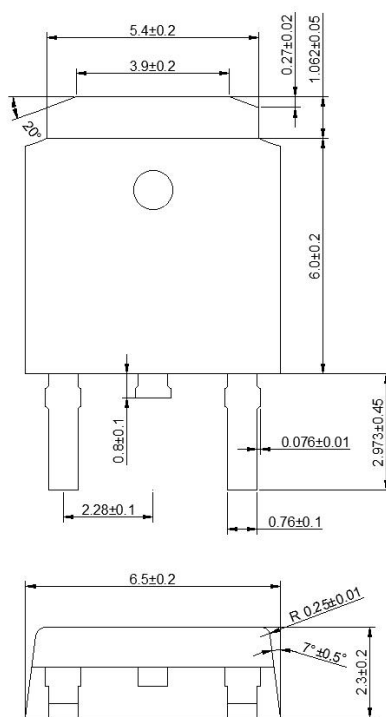
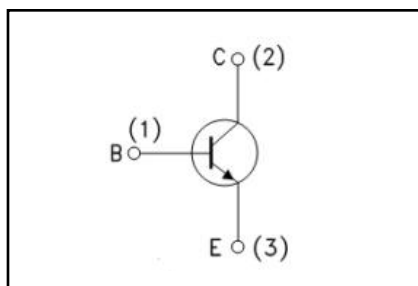
◆ **Features:**

- ✧ 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



单位:mm
TO-252



◆ Absolute Maximum Ratings (Tc=25°C)

Symbol	Parameters	Ratings	Unit
VCBO	Collector-Base Voltage 集电极 - 基极电压	700	V
VCEO	Collector-Emitter Voltage 集电极 - 发射极电压	400	V
VEBO	Emitter-Base Voltage 发射极 - 基极电压	9	V
I _C	Collector Current-Continuous 集电极连续电流	6	A
I _B	Base Current-Continuous 基极连续电流	3	A
PC	Collector Power Dissipation 耗散功率	80	W
T _j	Max.Operating junction temperature 最大结温	150	°C
T _{stg}	Storage Temperature 存储温度	-55 ~ +150	°C
θ _{JC}	Junction to Case 结到外壳	1.47	°C/W



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

Symbol	Parameters	Min	Typ	Max	Units	Conditions
I_{CBO}	Collector Cutoff Current 集电极截止电流	--	--	10	uA	$V_{CB}=700V, I_B=0$
I_{EBO}	Emitter Cutoff Current 发射极截止电流	--	--	10	μA	$V_{EB}=9V, I_C=0$
BV_{CEO}	Collector Emitter Sustaining voltage(Note 1) 集电极发射极持续电压	400	--	--	V	$I_C=1mA, I_B=0$
$V_{CE(sat)}$	Collector Emitter Saturation Voltage(Note 1) 集电极发射极饱和电压	--	0.3	1.0	V	$I_C=3A, I_B=0.6A$
$V_{BE(sat)}$	Base-Emitter Saturation Voltage(Note 1) 基极发射极饱和电压	--	1.0	1.5	V	$I_C=2A, I_B=0.4A$
h_{FE}	DC Current Gain(Note 1) 直流电流增益	15	--	30		$I_C=2A, V_{CE}=5V$
f_T	Current-Gain—Bandwidth 电流增益带宽	4	--	--	MHz	$V_{CE}=10V, I_C=0.5A, f=1MHz$
T_s	Period of storage 贮存时间	2	--	8	us	$I_C=500mA, UI9600$
T_r	Up time 上升时间	--	--	1	us	
T_f	Drop-out time 下降时间	--	--	1	us	

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