OSA13009

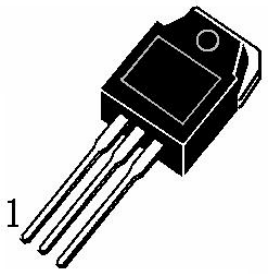
High Voltage Fast-Switching NPN Power Transistor

◆ 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

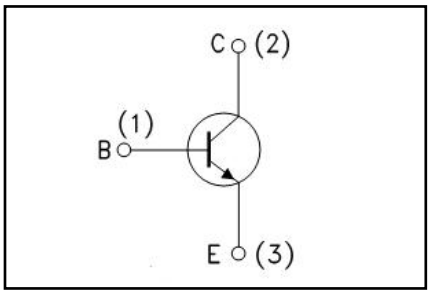
RoHS COMPLIANT

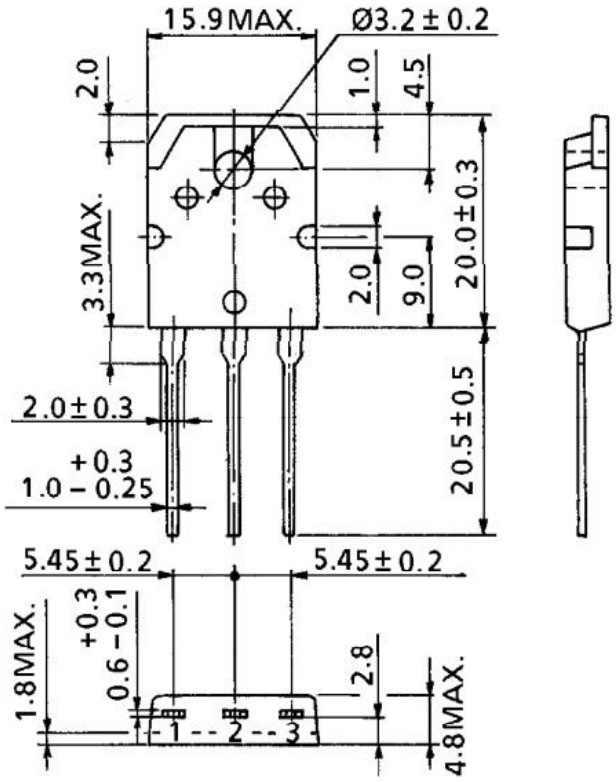
TO-220



◆ 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





◆ 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	**12**	A
I_B	Base Current-Continuous 基极连续电流	**6**	A
PC	Collector Power Dissipation 耗散功率	**130**	W
T_j	Max.Operating junction temperature 最大结温	**150**	℃
Tstg	Storage Temperature 存储温度	**-65～+150**	℃
θ JA	Junction to Ambient 结到环境	**21**	°C/W
θ JC	Junction to Case 结到外壳	**1.55**	°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		--	**50**	μA	V_{CE}=60V，I_B=0
I_{EBO}	Emitter Cutoff Current 发射极截止电流		--	**1**	mA	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=50mA，I_B=0
VCE(sat)	Collector Emitter Saturation Voltage(Note 1) 集电极发射极饱和电压			**1.2** **1.5** **3**	V	I_C=5A,I_B=1A I_C=8A,I_B=1.6A I_C=12A,I_B=3A
$VBE_{(sat)}$	Base-Emitter Saturation Voltage(Note 1) 基极发射极饱和电压			**1.2** **1.6**	V	I_C=5A,I_B=1A I_C=8A,I_B=1.6A
h_{FE}	DC Current Gain(Note 1) 直流电流增益	**8** **6**	--	**40** **30**		I_C=5A，V_{CE}=5V I_C=8A，V_{CE}=5V
f_T	Current-Gain—Bandwidth 电流增益带宽	**4**	--	--	MH_Z	VCE=10V， Ic=0.5A，f=1MHz

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

◆ Ratings and Characteristic curves