

# 3DFH3504Z

## 主要参数 MAIN CHARACTERISTICS

$I_C$	4A
$V_{CEO}$	350V
$P_C(TO-220)$	100W

## 用途

- 发动机点火
- 高频开关电源
- 高频功率变换
- 一般功率放大电路

## APPLICATIONS

- High ruggedness electronic Ignition for small engines
- High frequency switching power supply
- High frequency power transform
- Commonly power amplifier circuit

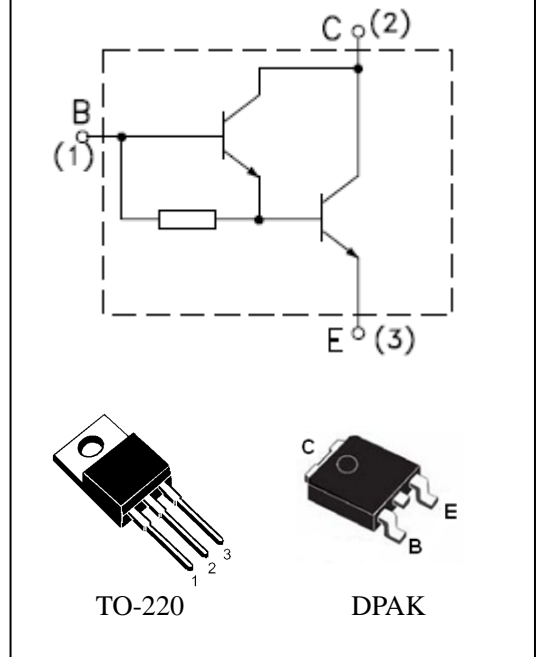
## 产品特性

- 高耐压
- 高电流容量
- 高开关速度
- 高可靠性
- 环保 (RoHS) 产品

## FEATURES

- High breakdown voltage
- High current capability
- High switching speed
- High reliability
- RoHS product

## 封装 Package



## 订货信息 ORDER MESSAGE

订货型号 Order codes						印 记 Marking	封 装 Package
有卤-条管 Halogen-Tube	无卤-条管 Halogen Free-Tube	有卤-袋装 Halogen-Reel	无卤-袋装 Halogen Free-Reel	有卤-编带 Halogen-Reel	无卤-编带 Halogen Free-Reel		
3DFH3504Z-CA-B	N/A	3DFH3504Z-CA-C	N/A	N/A	N/A	FH3504Z	TO-220
3DFH3504Z-R-B	N/A	3DFH3504Z-R-C	N/A	3DFH3504Z-R-A	N/A	FH3504Z	DPAK

绝对最大额定值 ABSOLUTE RATINGS ( $T_C=25^{\circ}\text{C}$ )

项 目 Parameter	符 号 Symbol	数 值 Value	单 位 Unit
集电极—发射极直流电压 Collector- Emitter Voltage ( $V_{BE}=0$ )	$V_{CES}$	550	V
集电极—发射极直流电压 Collector- Emitter Voltage ( $I_B=0$ )	$V_{CEO}$	350	V
发射极—基极直流电压 Emitter-Base Voltage	$V_{EBO}$	10	V
最大集电极直流电流 Collector Current (DC)	$I_C$	4	A
最大集电极脉冲电流 Collector Current (pulse)	$I_{CP}$	8	A
最大基极直流电流 Base Current (DC)	$I_B$	0.5	A
最大基极脉冲电流 Base Current (pulse)	$I_{BP}$	2.5	A
最大集电极耗散功率 Total Dissipation (TO-220)	$P_C$	100	W
最大集电极耗散功率 Total Dissipation (DPAK)	$P_C$	35	W
最高结温 Junction Temperature	$T_j$	150	$^{\circ}\text{C}$
贮存温度 Storage Temperature	$T_{stg}$	-55~+150	$^{\circ}\text{C}$

注：pulse电流宽度为小于5ms的非重复单脉冲。 Pulse Test: Pulse Width = 5.0 ms, Duty Cycle < 10%.

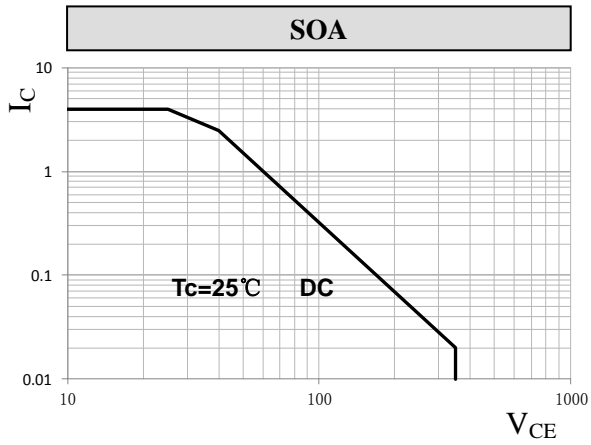
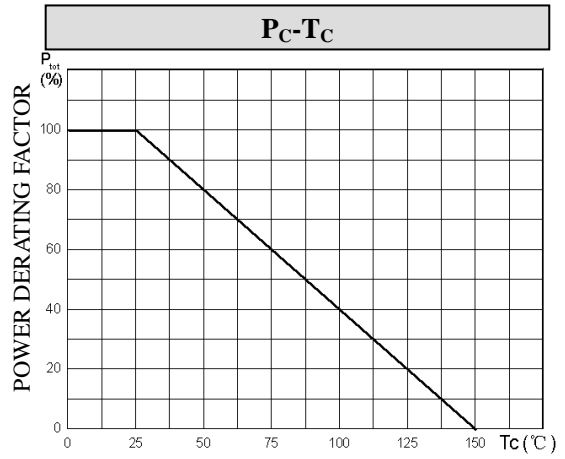
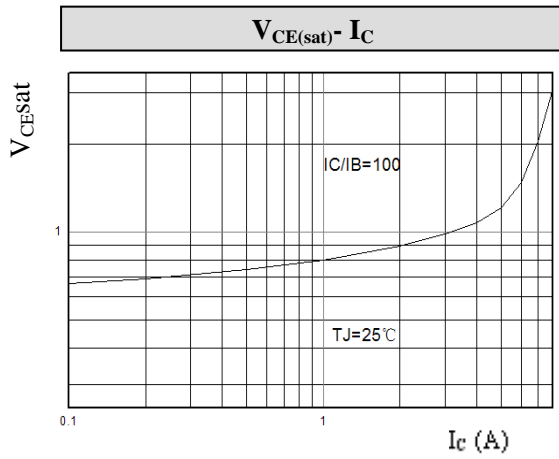
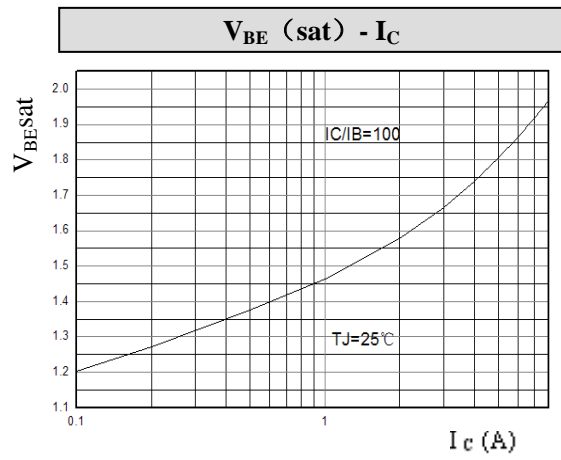
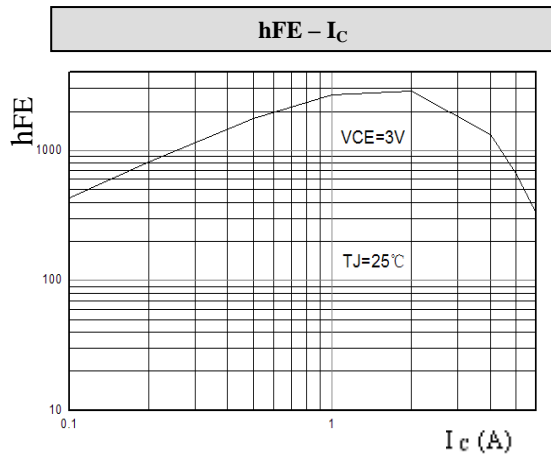
## 电特性 ELECTRICAL CHARACTERISTIC

项 目 Parameter	测试条件 Tests conditions	最小值 Value(min)	典型值 Value(typ)	最大值 Value(max)	单 位 Unit
$V_{(BR)CEO}$	$I_C=10\text{mA}, I_B=0$	350	-	-	V
$V_{(BR)CBO}$	$I_C=1\text{mA}, I_B=0$	550	-	-	V
$V_{(BR)EBO}$	$I_E=1\text{mA}, I_C=0$	10	-	-	V
$I_{CBO}$	$V_{CB}=550\text{V}, I_E=0$	-	-	100	$\mu\text{A}$
$I_{CEO}$	$V_{CE}=350\text{V}, I_B=0$	-	-	100	$\mu\text{A}$
$I_{EBO}$	$V_{EB}=10\text{V}, I_C=0$	-	-	10	$\mu\text{A}$
Hfe(1)	$V_{CE}=3\text{V}, I_C=2\text{A}$	2000	-	-	
Hfe(2)	$V_{CE}=3\text{V}, I_C=4\text{A}$	500	-	-	
$V_{CE(sat)}$	$I_C=2\text{A}, I_B=20\text{mA}$	-	-	1.5	V
$V_{BE(sat)}$	$I_C=2\text{A}, I_B=20\text{mA}$	-	-	2.0	V
tf	$V_{CC}=12\text{V}, I_C=2\text{A}, I_{B1}=-I_{B2}=20\text{mA}$	-	1.5	-	$\mu\text{S}$
ts		-	15	-	$\mu\text{S}$

## 热特性 THERMAL CHARACTERISTIC

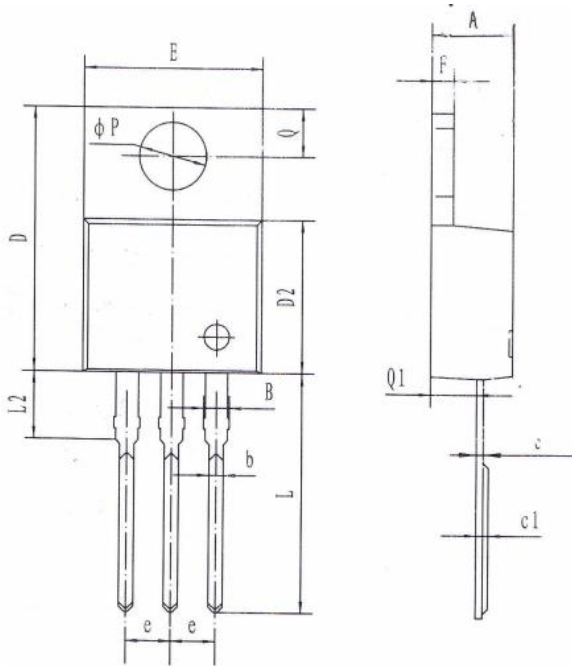
项 目 Parameter	符 号 Symbol	最小值 Value(min)	最大值 Value(max)	单 位 Unit
结到管壳的热阻 TO-220 Thermal Resistance Junction Case TO-220	$R_{th(j-c)}$	-	1.25	$^{\circ}\text{C/W}$
结到管壳的热阻 DPAK Thermal Resistance Junction Case DPAK	$R_{th(j-c)}$	-	3.57	$^{\circ}\text{C/W}$

特征曲线 ELECTRICAL CHARACTERISTICS (curves)



外形尺寸 PACKAGE MECHANICAL DATA  
**TO-220**

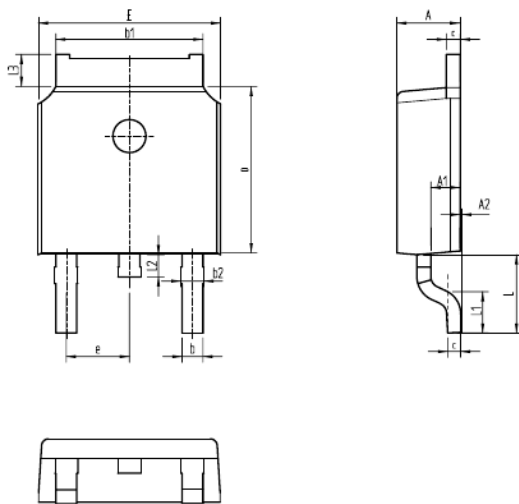
单位 Unit : mm



符号	尺寸 (mm)
<b>A</b>	4.40-4.80
<b>B</b>	1.10-1.40
<b>b</b>	0.70-0.95
<b>c</b>	0.28-0.48
<b>c1</b>	0.32-0.52
<b>D</b>	14.45-16.00
<b>D2</b>	8.20-9.20
<b>E</b>	9.60-10.40
<b>e</b>	2.39-2.69
<b>F</b>	1.20-1.35
<b>L</b>	13.05-14.05
<b>L2</b>	3.70-3.90
<b>P</b>	3.50-4.00
<b>Q</b>	2.40-3.00
<b>Q1</b>	2.20-2.90

外形尺寸 PACKAGE MECHANICAL DATA  
**DPAK**

单位 Unit : mm



符号	尺寸 (mm)
<b>A</b>	2.16-2.41
<b>A1</b>	0.97-1.17
<b>A2</b>	0.00-0.15
<b>b</b>	0.63-0.93
<b>b1</b>	5.13-5.53
<b>b2</b>	0.66-0.96
<b>c</b>	0.40-0.60
<b>D</b>	5.80-6.40
<b>E</b>	6.30-6.90
<b>e</b>	2.286BSC
<b>L</b>	2.50-3.30
<b>L1</b>	1.20-1.80
<b>L2</b>	0.60-1.00
<b>L3</b>	0.85-1.30

## 注意事项

1. 吉林华微电子股份有限公司的产品销售分为直销和销售代理，无论哪种方式，订货时请与公司核实。
2. 购买时请认清公司商标，如有疑问请与公司本部联系。
3. 在电路设计时请不要超过器件的绝对最大额定值，否则会影响整机的可靠性。
4. 本说明书如有版本变更不另外告知。

## NOTE

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2. We strongly recommend customers check carefully on the trademark when buying our product, if there is any question, please don't be hesitate to contact us.
3. Please do not exceed the absolute maximum ratings of the device when circuit designing.
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