

# 3FT8Z/C/F/U/V

## 主要参数 MAIN CHARACTERISTICS

$I_{T(RMS)}$	8A
$V_{DRM}$	600V or 800V
$I_{GT}$	5mA, 10mA

## 用途

- 交流开关
- 相位控制

## APPLICATIONS

- AC switching
- Phase control

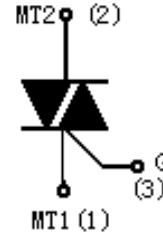
## 产品特性

- 玻璃钝化芯片，高可靠性和一致性
- 低通态电流和高浪涌电流能力
- 环保 RoHS 产品

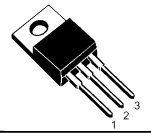
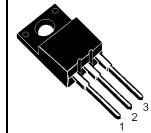
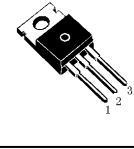
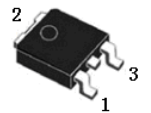
## FEATURES

- Glass-passivated mesa chip for high reliability and uniform
- Low on-state voltage and High  $I_{TSM}$
- RoHS products

## 封装 Package



序号 Pin	引线名称 Description
1	主电极 1 MT1
2	主电极 2 MT2
3	门极 G

**TO-220**

**TO-220HF**

**TO-220C**

**DDPAK**

**DDPAK**


## 订货信息 ORDER MESSAGES

订货型号 Order code	印记 Marking	封装 Package	包装 Packaging
3FT8Z-O-Z-N-C	3FT8Z	TO-220	袋装 Bag
3FT8C-O-C-N-B	3FT8C	TO-220C	条管 Tube
3FT8F-O-HF-N-B	3FT8F	TO-220HF	条管 Tube
3FT8U-O-U-B-A	3FT8U	DPAK	编带 Tape
3FT8V-O-V-N-B	3FT8V	IPAK	条管 Tube



绝对最大额定值 ABSOLUTE RATINGS (T<sub>c</sub>=25℃)

项 目 Parameter	符 号 Symbol	试 验 条 件 Condition	数 值 Value	单 位 Unit
重复峰值断态电压 Repetitive peak off-state voltage	V <sub>DRM</sub>		±600 ±800	V
通态方均根电流 On-state RMS current	I <sub>T(RMS)</sub>	full sine wave	8	A
非重复浪涌峰值通态电流 Non-repetitive surge peak on-state current	I <sub>TSM</sub>	full sine wave ,t=20ms	65	A
		full sine wave ,t=16.7ms	71	A
		I <sup>2</sup> t	t=10ms	21
通态电流临界上升率 Repetitive rate of rise of on-state current after triggering	di/dt	I <sub>TM</sub> =12A, I <sub>G</sub> =0.2A, dI <sub>G</sub> /dt=0.2A/μs	50	A/μs
峰值门极电流 Peak gate current	I <sub>GM</sub>		2	A
峰值门极电压 Peak gate voltage	V <sub>GM</sub>		5	V
峰值门极功率 Peak gate power	P <sub>GM</sub>		5	W
平均门极功率 Average gate power	P <sub>G(AV)</sub>	over any 20ms period	0.5	W
存储温度 Storage temperature	T <sub>stg</sub>		-40~150	℃
操作结温 Operation junction temperature	T <sub>VJ</sub>		125	℃

**电特性 ELECTRICAL CHARACTERISTIC (T<sub>c</sub>=25°C)**

项 目 Parameter	符 号 Symbol	测 试 条 件 Condition	最小 Min	典型 Typ	最大 Max	单位 Unit	
峰值重复断态电流 Peak Repetitive Blocking Current	I <sub>DRM</sub>	V <sub>DM</sub> =V <sub>DRM</sub> , T <sub>j</sub> =125°C, gate open	-	0.1	0.5	mA	
峰值通态电压 Peak on-state voltage	V <sub>TM</sub>	I <sub>TM</sub> =10A	-	1.35	1.65	V	
门极触发电压 Gate trigger voltage	V <sub>GT</sub>	V <sub>DM</sub> =12V, R <sub>L</sub> =100Ω	-	-	1.5	V	
门极开通时间 Gate controlled turn-on time	t <sub>gt</sub>	I <sub>TM</sub> =12A, V <sub>DM</sub> =V <sub>DRM(MAX)</sub> , I <sub>G</sub> =0.1A, dI <sub>G</sub> /dt=5A/μS	-	2	-	μs	
			3FT8 5mA 档	3FT8 10mA 档			
门极触发电流 Gate trigger current	I <sub>GT</sub>	V <sub>DM</sub> =12V, R <sub>L</sub> =100Ω	MT1(-),MT2(+),G(+)		≤5	≤10	mA
			MT1(-),MT2(+),G(-)				mA
			MT1(+),MT2(-),G(-)				mA
			MT1(+),MT2(-),G(+)				≤10
维持电流 Holding current	I <sub>H</sub>	V <sub>DM</sub> =12V, I <sub>GT</sub> =0.1A	≤10	≤20	≤20	mA	
擎住电流 Latching current	I <sub>L</sub>	V <sub>DM</sub> =12V, I <sub>GT</sub> =0.1A	≤20	≤35	≤35	mA	
断态临界电压上升率 Rise of off- state voltage	dV/dt	V <sub>DM</sub> =67% V <sub>DRM(MAX)</sub> , T <sub>j</sub> =125°C, gate open	Typ 10	Typ 50	Typ 50	V/μs	

**热特性 THERMAL CHARACTERISTIC**

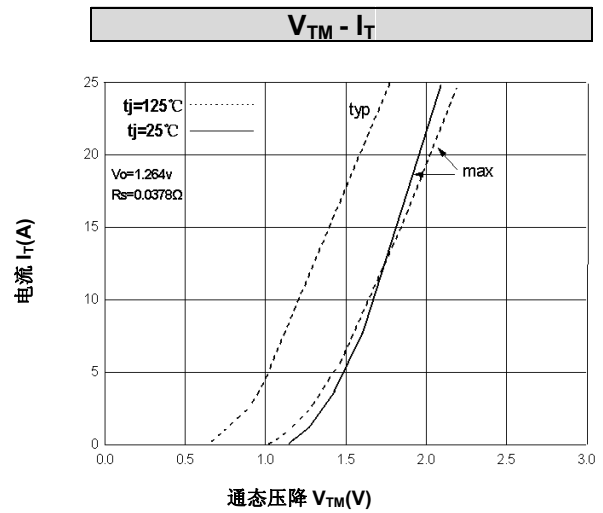
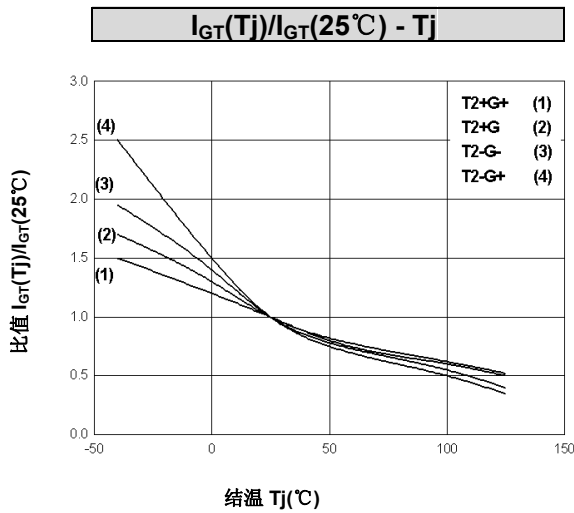
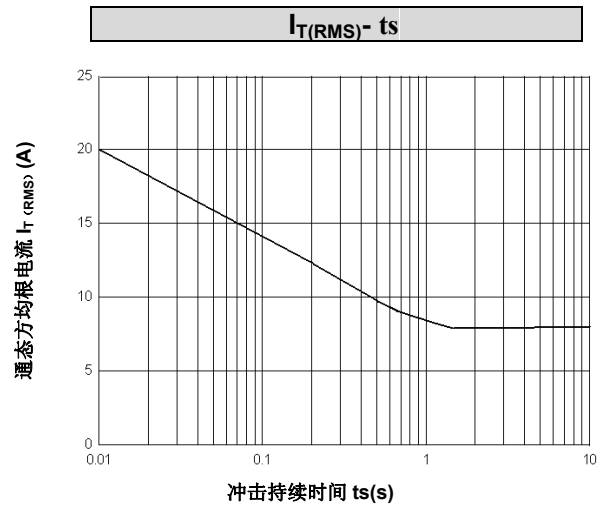
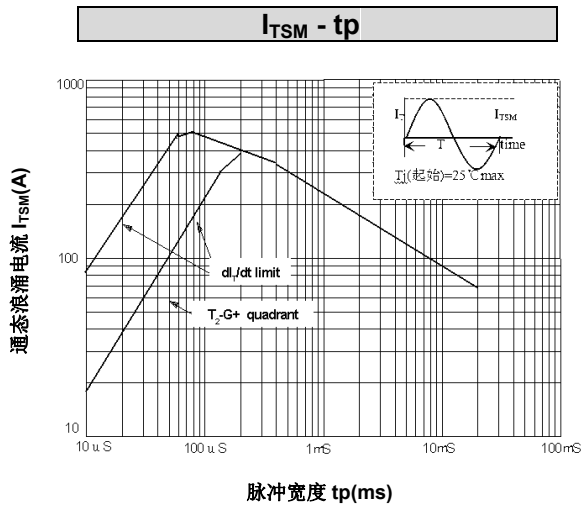
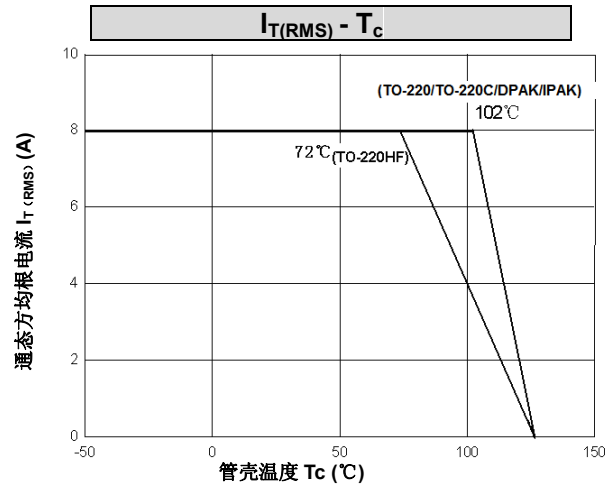
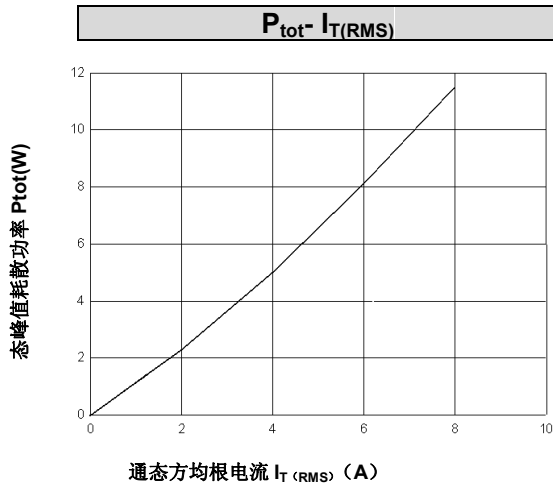
项 目 Parameter	符 号 Symbol	条 件 Condition	最小 Min	典型 Typ	最大 Max	单位 Unit
结到管壳的热阻 Thermal resistance junction to case	R <sub>th(j-c)</sub>	full cycle TO-220/TO-220C/DPAK/IPAK			2.0	°C/W
		full cycle(TO-220HF)			4.5	°C/W

**电绝缘特性 ELECTRICAL ISOLATION**

项 目 Parameter	符 号 Symbol	条 件 Condition	数 值 Value	单 位 Unit
绝缘电压 Isolation voltage	V <sub>ISOL</sub>	1 minute, leads to mounting tab TO-220HF	2000	V



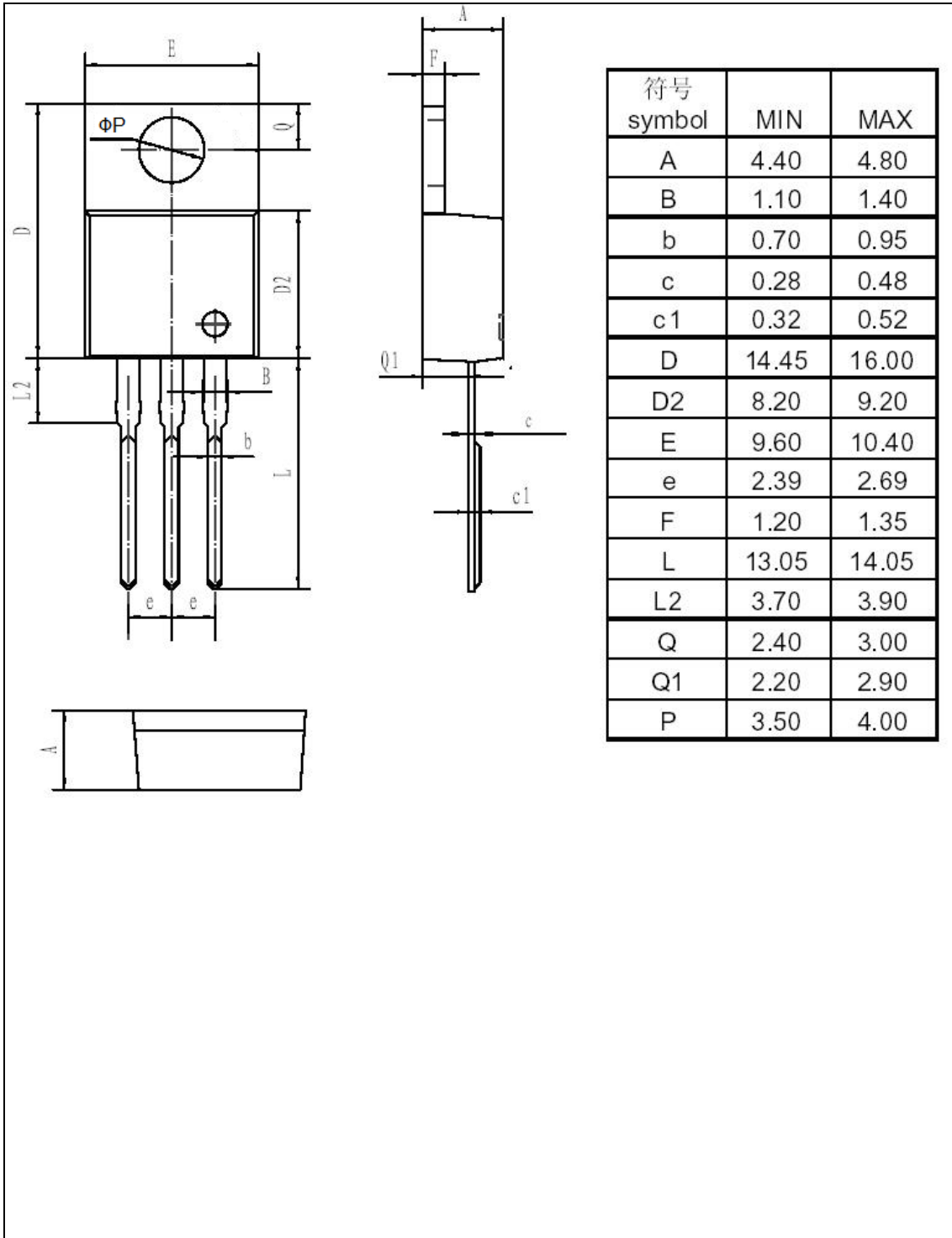
特征曲线 ELECTRICAL CHARACTERISTICS (curves)



外形尺寸 PACKAGE MECHANICAL DATA

TO-220

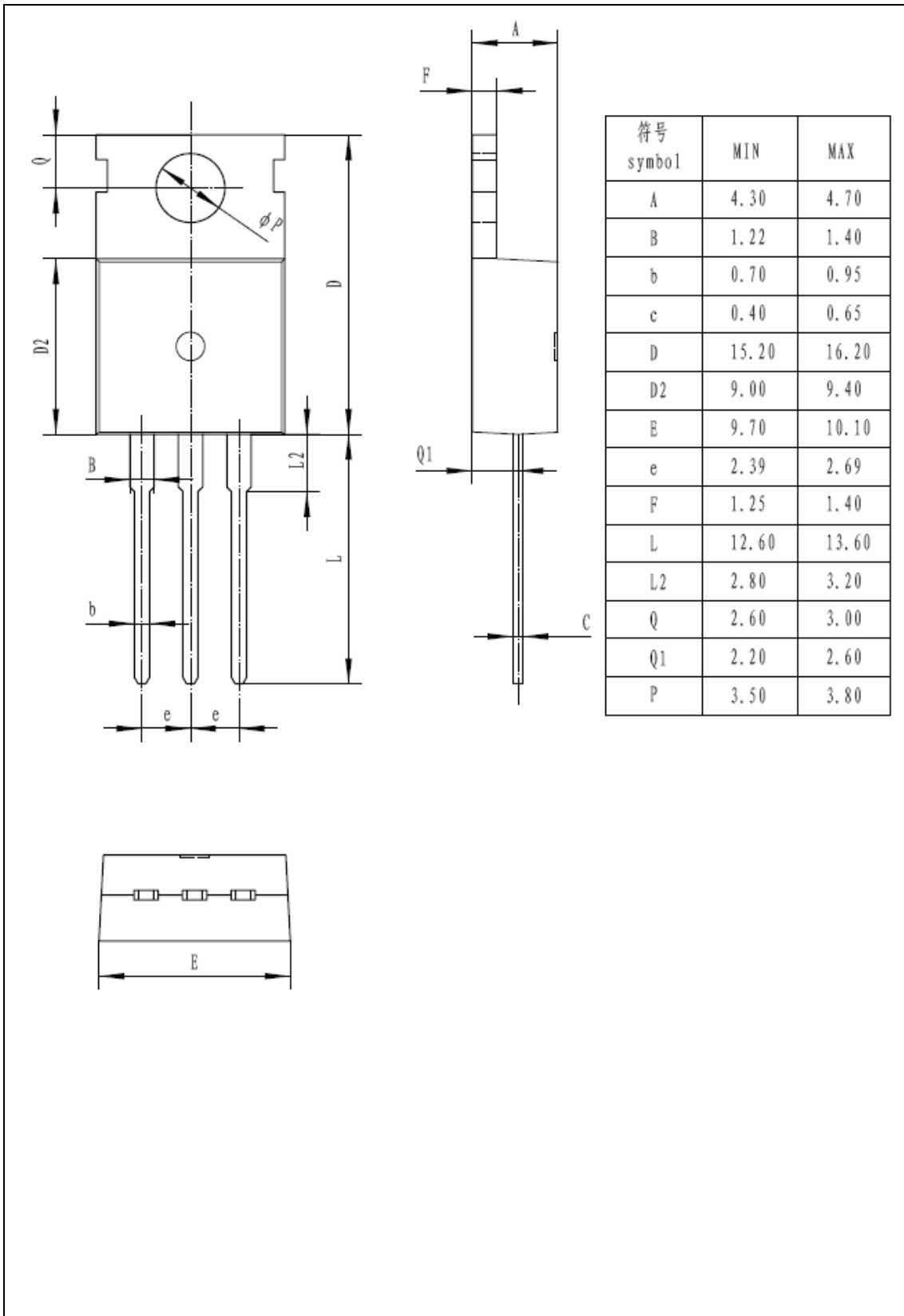
单位 Unit : mm



外形尺寸 PACKAGE MECHANICAL DATA

TO-220C

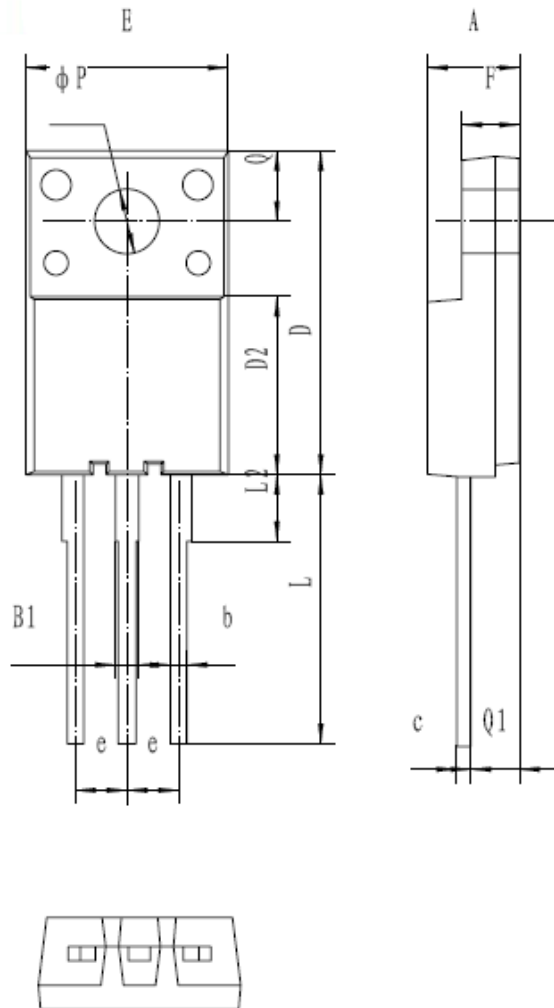
单位 Unit : mm



外形尺寸 PACKAGE MECHANICAL DATA

TO-220HF

单位 Unit : mm

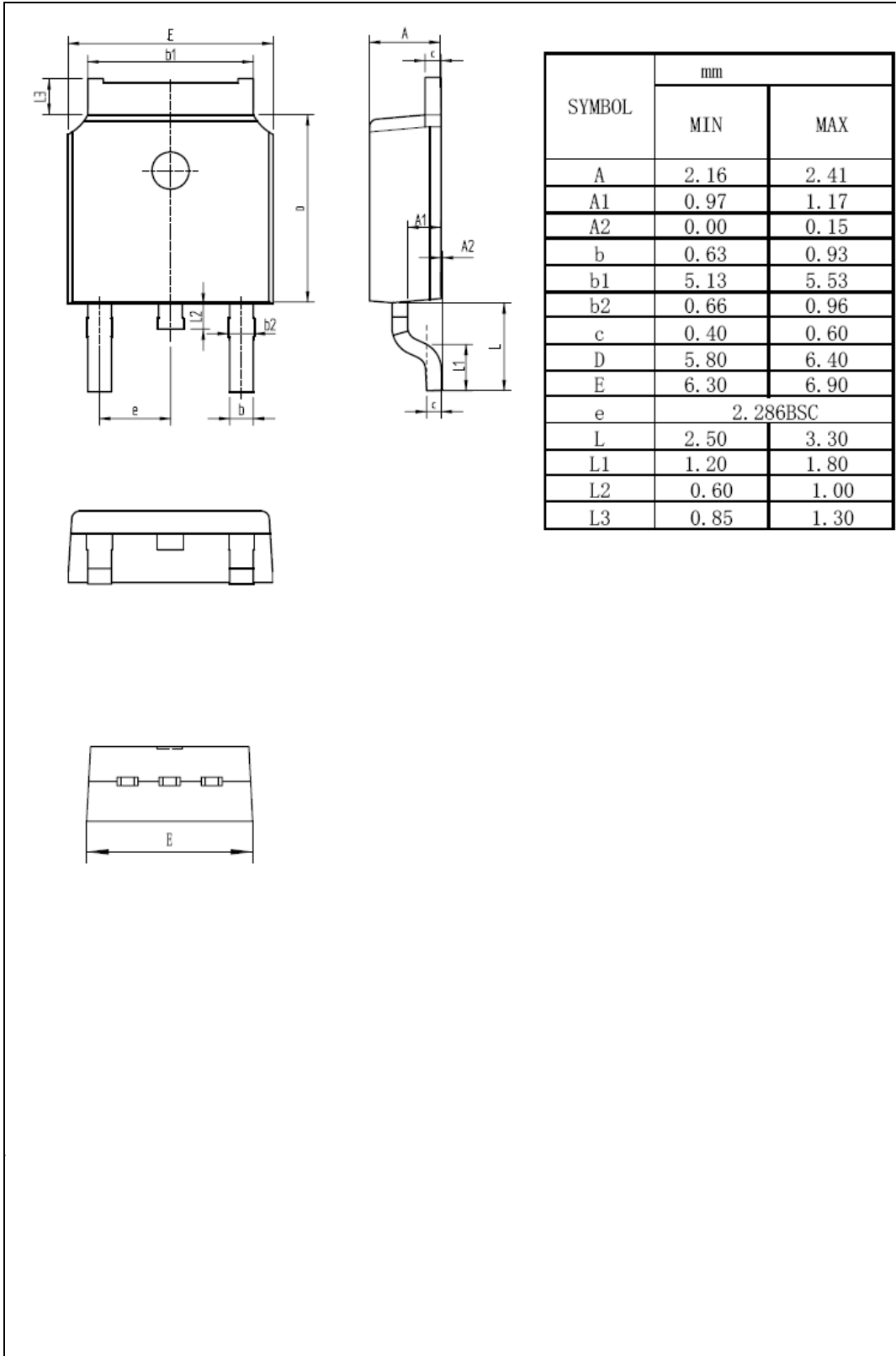


符号 symbol	MIN	MAX
A	4.0	5.0
B1	0.87	1.27
b	0.72	0.92
c	0.5	0.7
D	15.0	16.5
D2	7.8	9.4
E	9.62	10.62
e	2.54 TYP	
F	2.3	3.3
L	13.0	14.0
L2	3.1	3.5
$\phi P$	3.0	3.4
Q	3.15	3.55
Q1	2.2	2.5

外形尺寸 PACKAGE MECHANICAL DATA

**DPAK**

单位 Unit : mm





外形尺寸 PACKAGE MECHANICAL DATA

**IPAK**

单位 Unit : mm

