



CS4100M5A

主要参数 MAIN CHARACTERISTICS

$I_{T(RMS)}$	4A
V_{DRM}/V_{RRM}	600V
I_{GT}	10-100 μ A

用途

- 半交流开关
- 相位控制

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

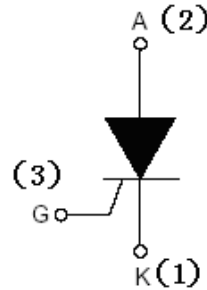
APPLICATIONS

- Half AC switching
- Phase control

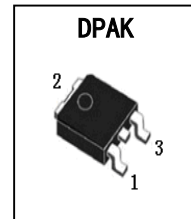
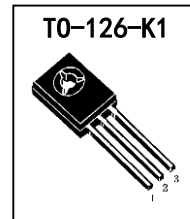
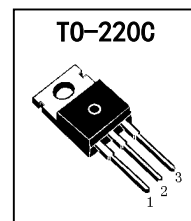
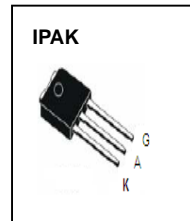
FEATURES

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

封装 Package



序号 Pin	引线名称 Description
1	阴极 K
2	阳极 A
3	门极 G



- 环保 RoHS 产品
- RoHS products

订货信息 ORDER MESSAGES

订货型号 Order codes				印 记 Marking	封 装 Package
有卤-条管	无卤-条管	有卤-袋装	无卤-袋装		
Halogen-Tube	halogen-Free-Tube	Halogen-Bag	Halogen-Free- Bag		
CS4100M5A-M-B	CS4100M5A-M-BR	CS4100M5A-M-C	CS4100M5A-M-CR	CS4100M5	TO-126-K1
CS4100M5A -C-B	CS4100M5A -C-BR	CS4100M5A -C-C	CS4100M5A -C-CR	CS4100M5	TO-220C
CS4100M5A -V-B	CS4100M5A -V-BR	CS4100M5A -V-C	CS4100M5A -V-CR	CS4100M5	IPAK
有卤-编带	无卤-编带	N/A	N/A	CS4100M5A	DPAK
Halogen-Reel	Halogen-Free-Reel	N/A	N/A		
CS4100M5A-R-A	CS4100M5A -R-AR	N/A	N/A		

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

项 目 Parameter	符 号 Symbol	试 验 条 件 Condition	数 值 Value	单 位 Unit
断态（反向）重复峰值电压 Repetitive peak off-state (reverse) voltage	V_{DRM} $/V_{\text{RRM}}$		600/800	V
通态平均电流 Average on-state current	$I_{\text{T(AV)}}$		2.5	A
通态方均根电流 On-state RMS current	$I_{\text{T(RMS)}}$		4	A
非重复浪涌峰值通态电流 Non-repetitive surge peak on-state current	I_{TSM}	half sine wave ,t=10ms	40	A
熔断 I^2t I^2t for fusing	I^2t	half sine wave, t=10ms	8.0	A^2s
通态电流临界上升率 Repetitive rate of rise of on-state current after rigging	di/dt	$I_{\text{TM}}=2.0\text{A}$, $I_{\text{G}}=0.02\text{A}$, $di_{\text{G}}/dt=1.0\text{A}/\mu\text{s}$	50	$\text{A}/\mu\text{s}$
峰值门极电流 Peak gate current	I_{GM}		1.2	A
平均门极功率 Average gate power	$P_{\text{G(AV)}}$	over any 20ms period	0.2	W
存储温度 Storage temperature	T_{stg}		-40~150	$^\circ\text{C}$
操作结温 Operation junction temperature	T_{VJ}		-40~125	$^\circ\text{C}$

电特性 ELECTRICAL CHARACTERISTIC (T_c=25°C)

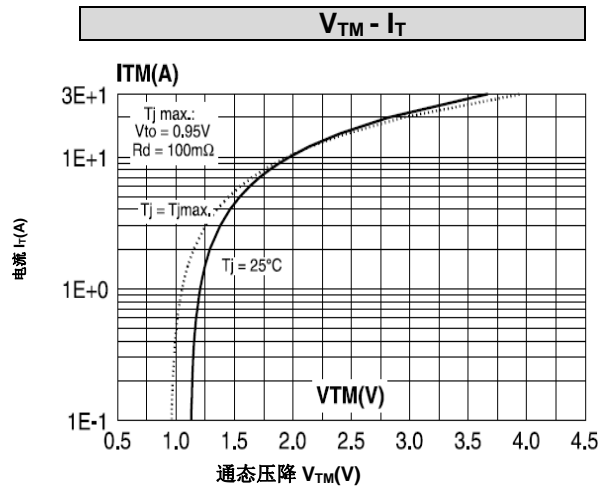
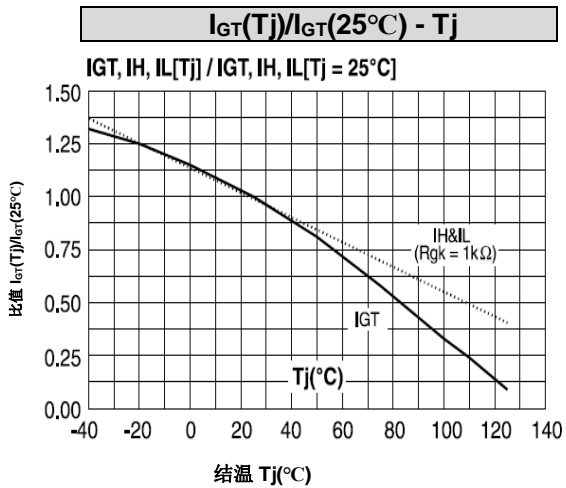
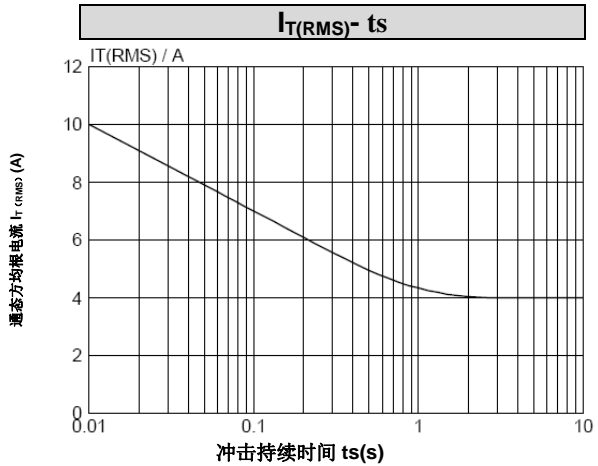
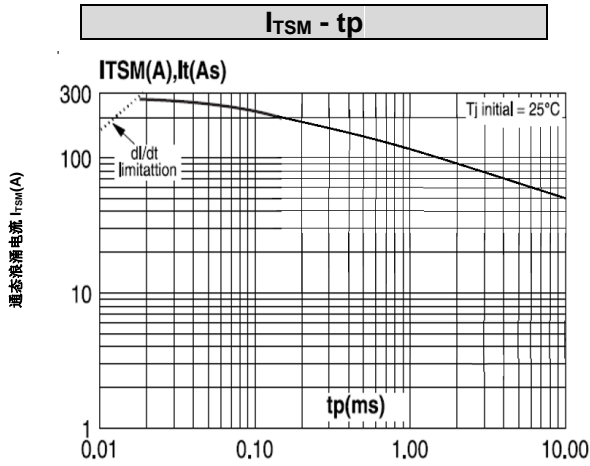
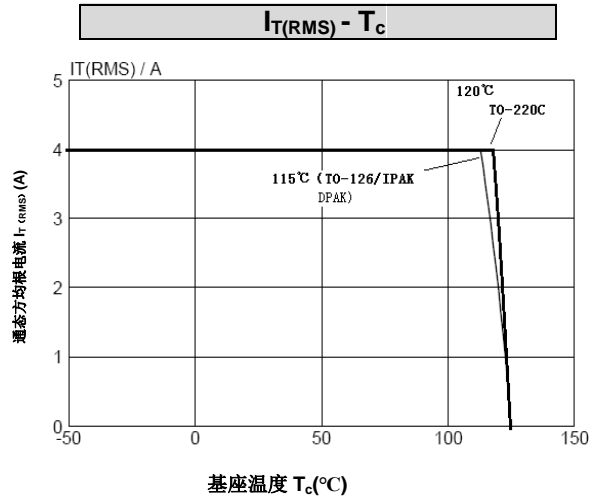
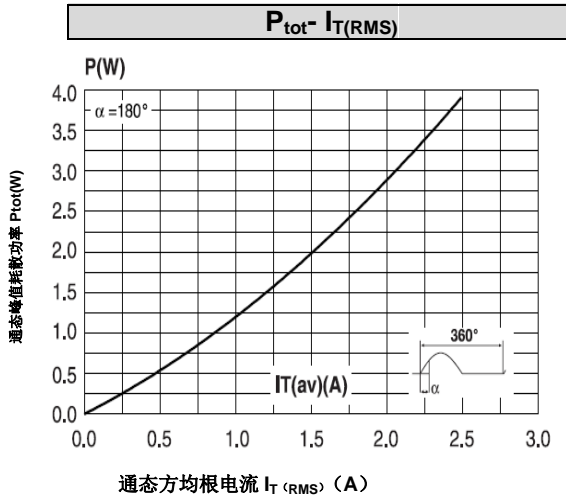
项 目 Parameter	符 号 Symbol	测 试 条 件 Condition	最小 Min	典型 Typ	最大 Max	单位 Unit
断态峰值重复电流 Peak Repetitive Blocking Current	I _{DRM}	V _{DM} =V _{DRM} , T _j =125°C, R _{GK} =1KΩ	-	-	1	mA
反向峰值重复电流 Peak Repetitive Reverse Current	I _{RPM}	V _{RM} =V _{RPM} , T _j =125°C, R _{GK} =1KΩ	-	-	1	mA
峰值通态电压 Peak on-state voltage	V _{TM}	I _{TM} =8A	-	-	1.8	V
门极触发电流 Gate trigger current	I _{GT}	V _{AK} =12V, R _L =100Ω	10	-	100	μA
门极触发电压 Gate trigger voltage	V _{GT}	V _{AK} =7V, R _L =100Ω	-	0.62	0.8	V
维持电流 Holding current	I _H	V _{AK} =7V, Initiating Current = 20 mA	-	-	5	mA
擎住电流 Latch current	I _L	V _{AK} =7V, I _T =200μA	-	-	5	mA
断态临界电压上升率 Rise of off- state voltage	dV/dt	V _{DM} =100% V _{DRM(MAX)} , T _j =125°C, R _{GK} =1KΩ	15	-	-	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
结到引线的热阻 Thermal resistance junction to case	R _{th(j-c)}	full cycle (TO-220C)			1.5	°C/W
		full cycle (TO-126/DPAK/IPAK)			2.5	°C/W



特征曲线 ELECTRICAL CHARACTERISTICS (curves)

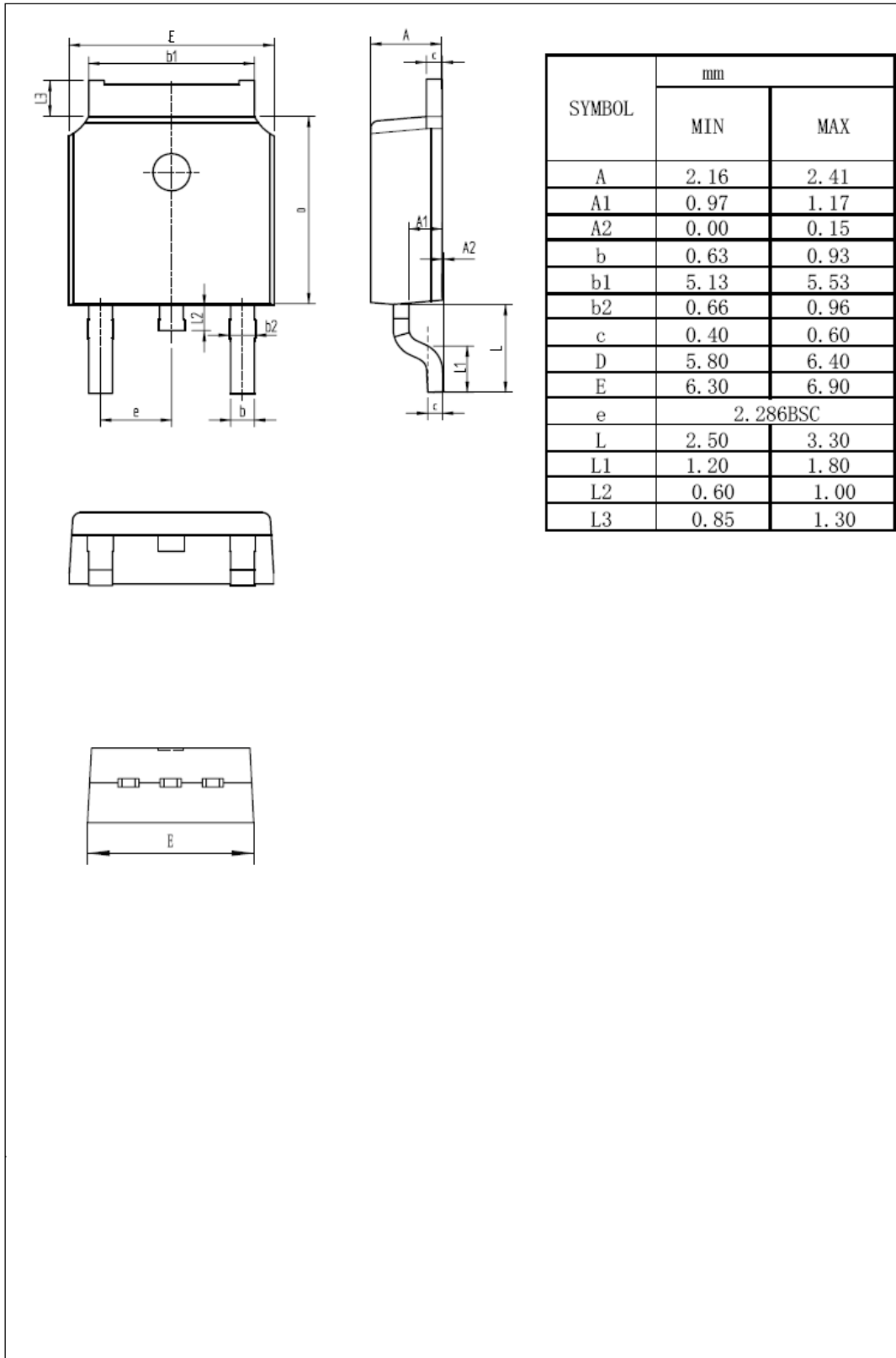




外形尺寸 PACKAGE MECHANICAL DATA

DPAK

单位 Unit : mm

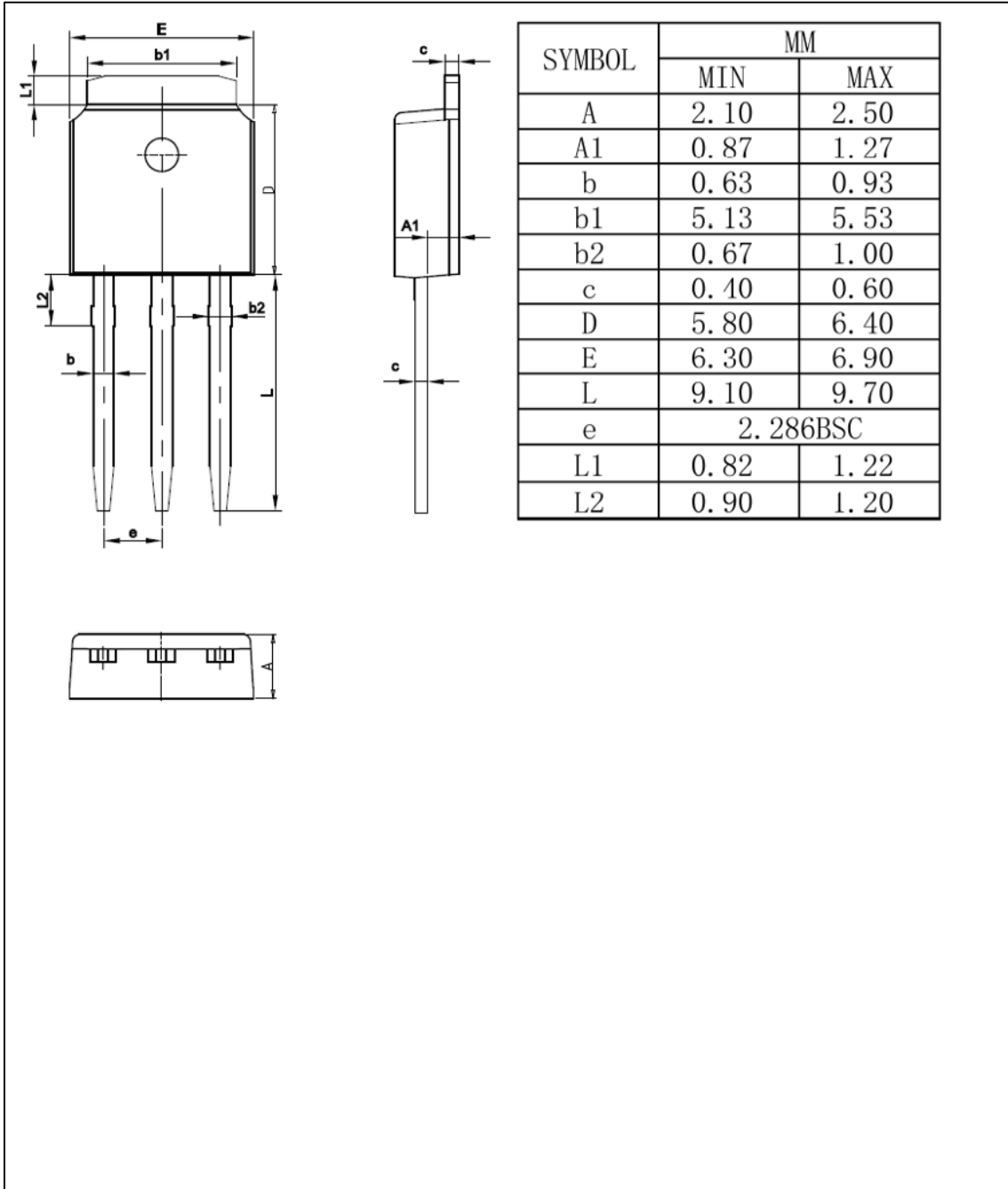




外形尺寸 PACKAGE MECHANICAL DATA

IPAK

单位 Unit : mm

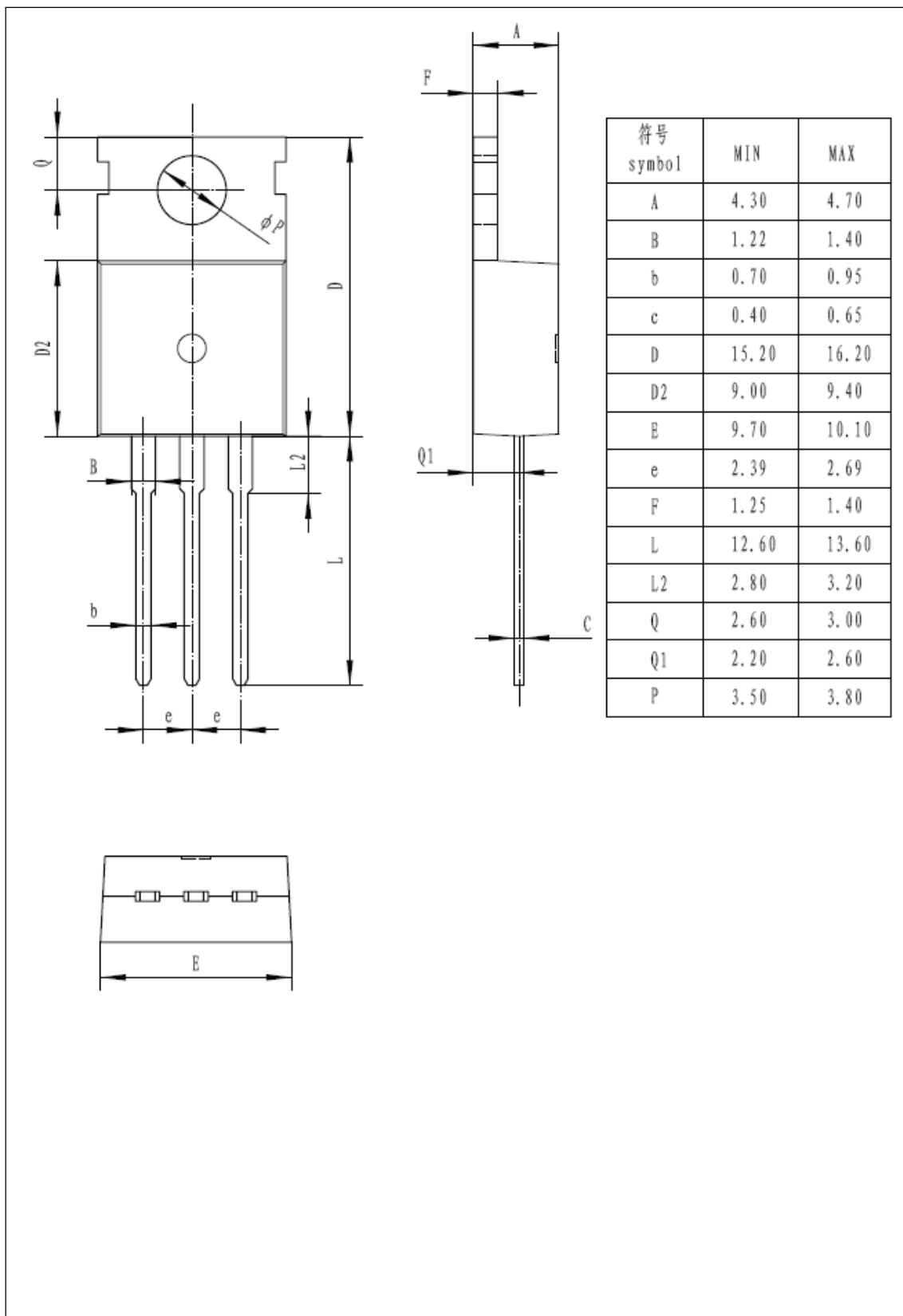


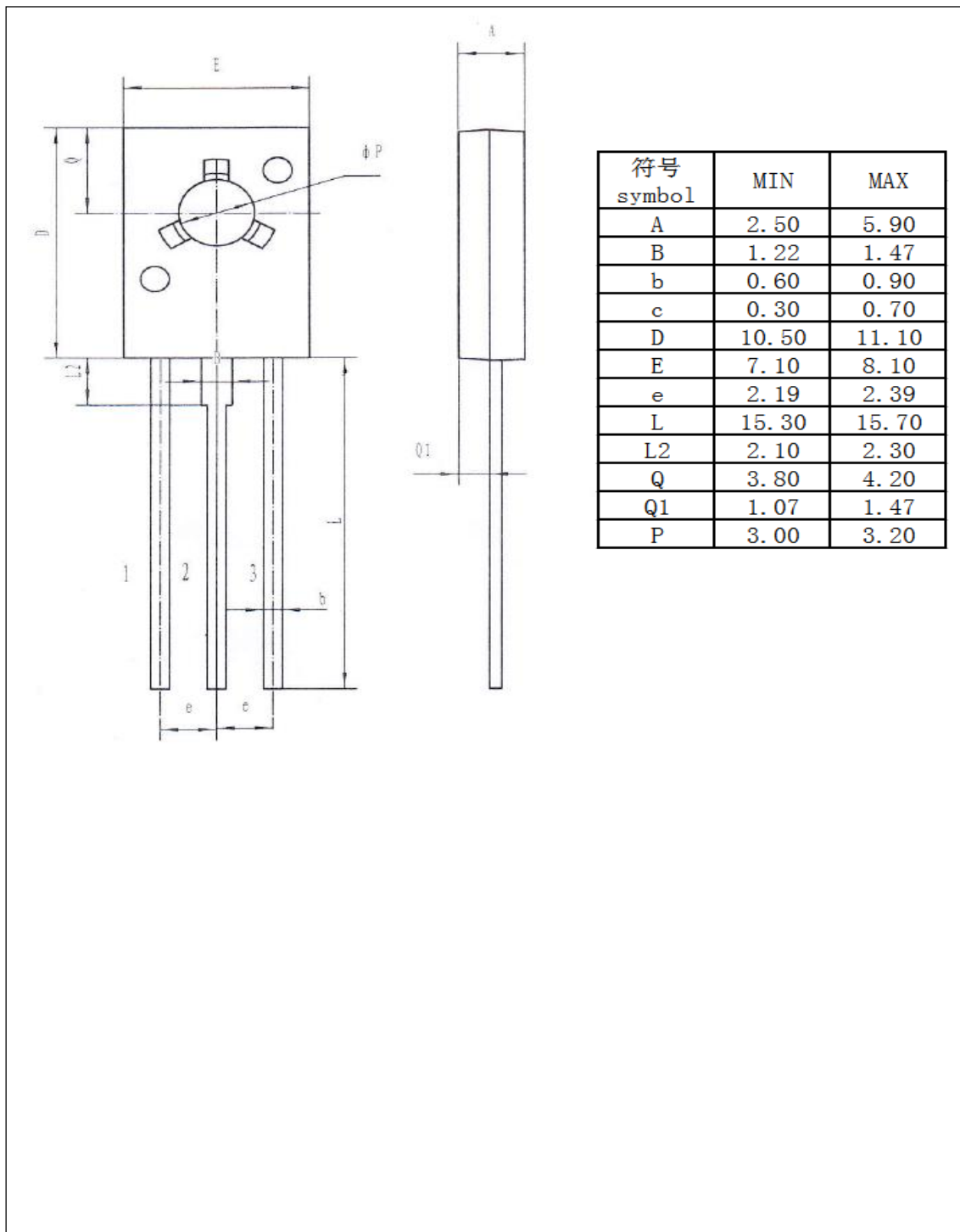


外形尺寸 PACKAGE MECHANICAL DATA

TO-220C

单位 Unit : mm







注意事项

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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。

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3. Please do not exceed the absolute maximum ratings of the device when circuit designing.
4. Jilin Sino-microelectronics co., Ltd reserves the right to make changes in this. specification sheet and is subject to change without prior notice.

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