



STD3045

主要参数 MAIN CHARACTERISTICS

$I_{F(AV)}$	30 (2×15) A
V_{RRM}	45V
T_{Jmax}	150 °C
IFSM	300A
$V_{F(max)}$	0.54V (@ $T_J=125^{\circ}C$)
芯片尺寸	2.59mm*2.59mm*2

用途

- 低压、高频整流
- 低压续流电路和保护电路

APPLICATIONS

- Low voltage, high frequency rectifier
- Free wheeling diodes, polarity protection applications

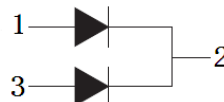
产品特性

- 低功耗，高效率
- 良好的高温特性
- 有过压保护环，高可靠性
- 环保（RoHS）产品

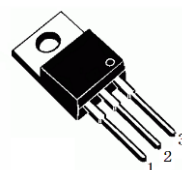
FEATURES

- Low power loss, high efficiency
- High Operating Junction Temperature
- Guard ring for overvoltage protection, High reliability
- RoHS product

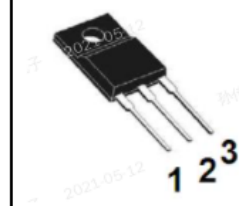
封装 Package



TO-220



TO-220MF-K1



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		
STD3045-F1-B	STD3045-F1-BR	STD3045	TO-220MF-K1
STD3045-CA-B	STD3045-CA-BR	STD3045	TO-220





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
最大反向重复峰值电压 Repetitive peak reverse voltage			V_{RRM}	45	V
最大直流阻断电压 Maximum DC blocking voltage			V_{DC}	45	V
正向平均整流电流 Average Forward Current	$T_C=100^{\circ}\text{C}$	整个器件 per device	$I_{F(AV)}$	30	A
		单 侧 per diode		15	
正向峰值浪涌电流 Surge non repetitive forward current (额定负载 10ms 半正弦波) 10 ms single half-sine-wave			I_{FSM}	300	A
最高结温 Maximum junction temperature			T_j	150	$^{\circ}\text{C}$
工作结温和储存温度范围 Storage temperature range			T_{Jmax}/T_{STG}	-55~+150	$^{\circ}\text{C}$

电特性 ELECTRICAL CHARACTERISTICS

项 目 Parameter	测试条件 Tests conditions		典型值 Value(typ)	最大值 Value(max)	单位 Unit
I_R	$T_j = 25^{\circ}\text{C}$	$V_R = V_{RRM}$	0.20	0.50	mA
	$T_j = 125^{\circ}\text{C}$	$V_R = V_{RRM}$	5	10	
V_F	$T_j = 25^{\circ}\text{C}$	$I_F = 15\text{A}$	0.54	0.58	V
	$T_j = 125^{\circ}\text{C}$		0.50	0.54	

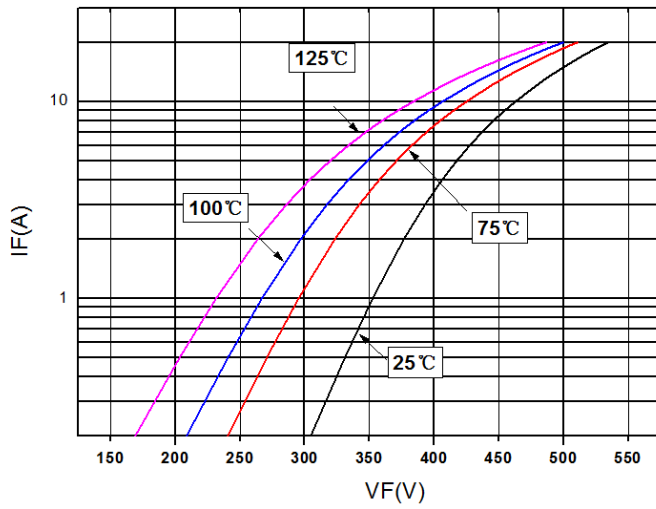
热特性 THERMAL CHARACTERISTICS

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 Thermal resistance from junction to case	TO-220	$R_{th(j-c)}$	——	1.7	$^{\circ}\text{C/W}$
结到管壳的热阻 Thermal resistance from junction to case	TO-220MF-K1	$R_{th(j-c)}$	——	3.92	$^{\circ}\text{C/W}$

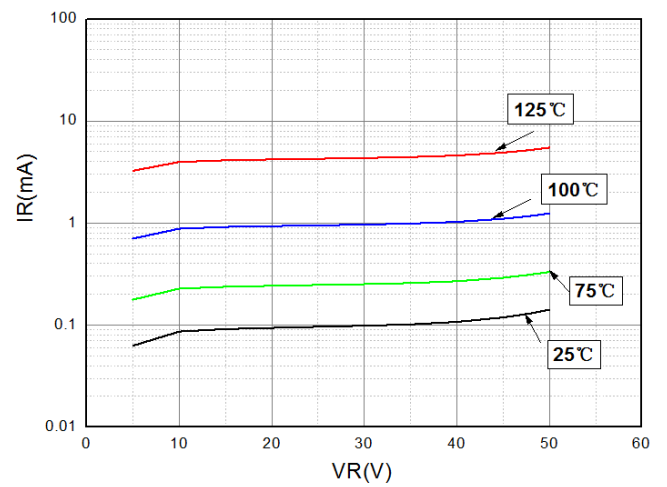


特征曲线 ELECTRICAL CHARACTERISTICS (curves)

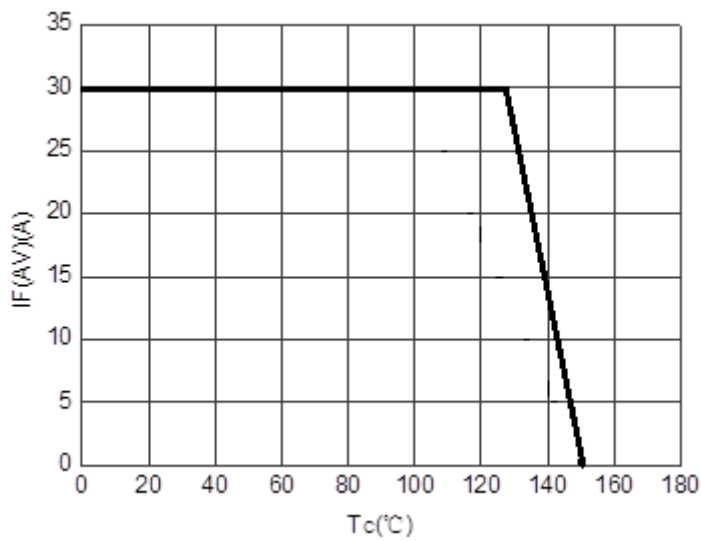
I_F vs V_F



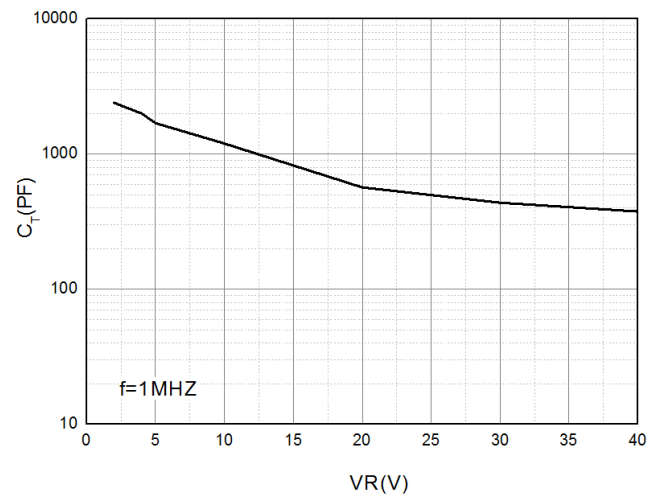
I_R vs V_R



I_F vs T_c



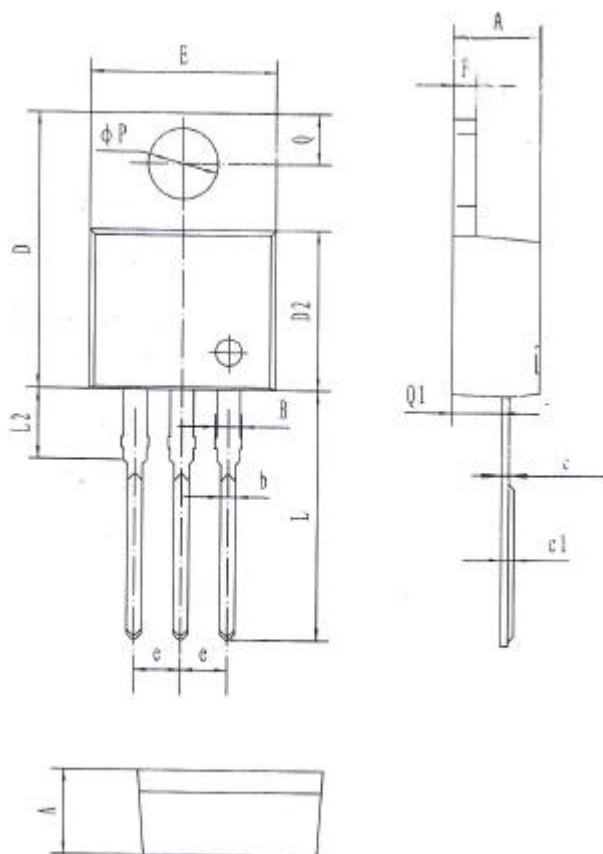
C_J vs V_R





外形尺寸 PACKAGE MECHANICAL DATA
TO-220

单位 Unit : mm



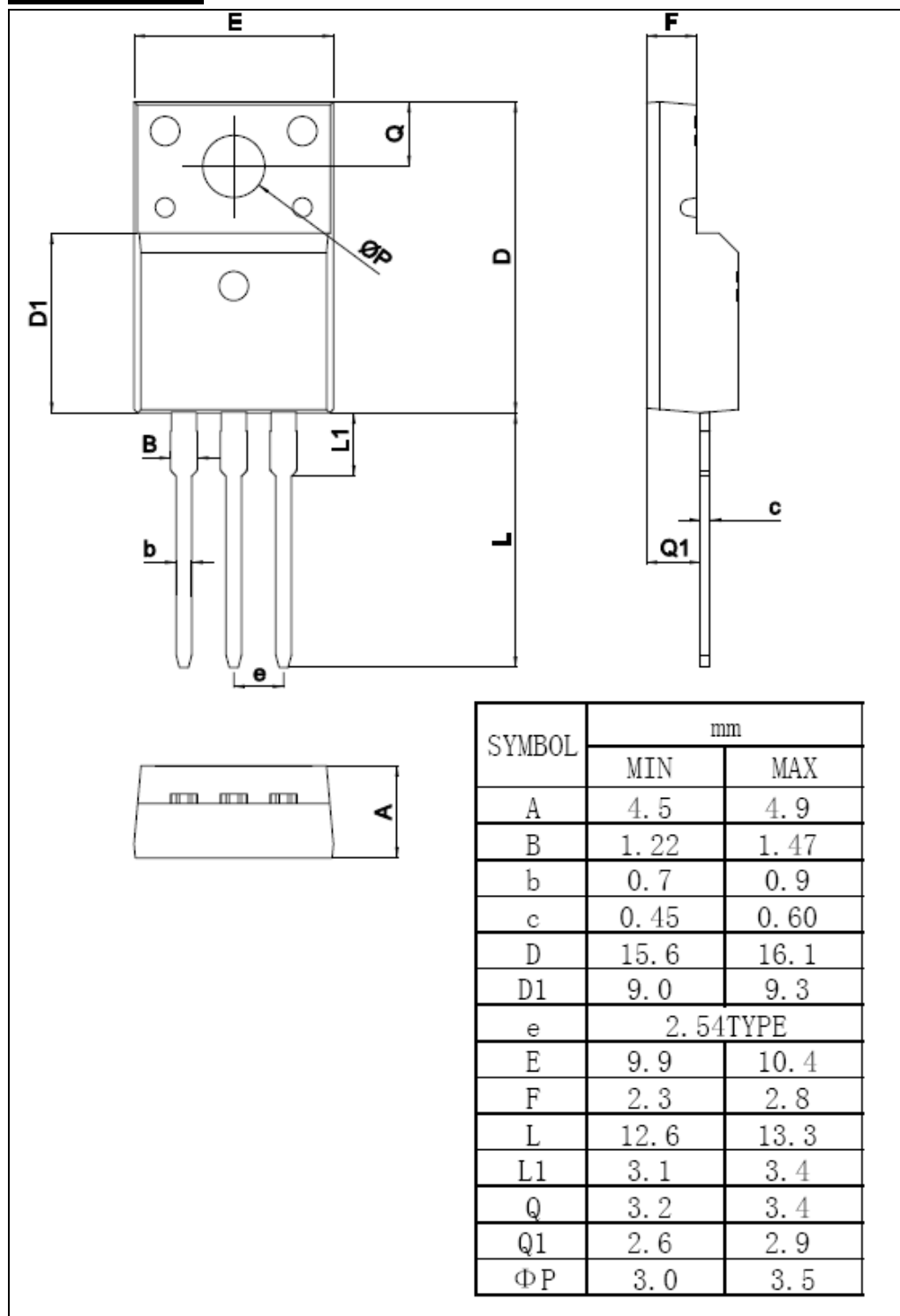
符号 symbol	MIN	MAX
A	4.40	4.80
B	1.10	1.40
b	0.70	0.95
c	0.28	0.48
c1	0.32	0.52
D	14.45	16.00
D2	8.20	9.20
E	9.60	10.40
e	2.39	2.69
F	1.20	1.35
L	13.05	14.05
L2	3.70	3.90
Q	2.40	3.00
Q1	2.20	2.90
P	3.50	4.00



外形尺寸 PACKAGE MECHANICAL DATA

TO-220MF-K1

单位 Unit : mm





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

1. Jilin Sino-microelectronics co., Ltd sales its product either through direct sales or sales agent , thus, for customers, when ordering , please check with our company.
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.
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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