



3DD13009M

主要参数 MAIN CHARACTERISTICS

I_C	12A
V_{CEO}	400V
$P_C(TO-220C)$	100W

用途

- 节能灯
- 电子镇流器
- 高频开关电源
- 高频功率变换
- 一般功率放大电路

APPLICATIONS

- Energy-saving light
- Electronic ballasts
- High frequency switching power supply
- High frequency power transform
- Commonly power amplifier

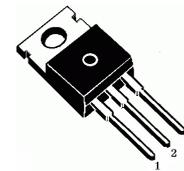
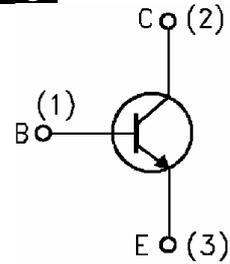
产品特性

- 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



TO-220C

订货信息 ORDER MESSAGE

订货型号 Order codes	印记 Marking	无卤素 Halogen Free	封装 Package	包装 Packaging
3DD13009M-O-C-N-B	D13009M	否 NO	TO-220C	条管 Tube





绝对最大额定值 ABSOLUTE RATINGS (Tc=25°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}	700	V
集电极—发射极直流电压 Collector- Emitter Voltage (I _B =0)	V _{CEO}	400	V
发射极—基极直流电压 Emitter-Base Voltage	V _{EBO}	9	V
最大集电极直流电流 Collector Current (DC)	I _C	12	A
最大集电极脉冲电流 Collector Current (pulse)	I _{CP}	24	A
最大基极直流电流 Base Current (DC)	I _B	6	A
最大基极脉冲电流 Base Current (pulse)	I _{BP}	12	A
最大集电极耗散功率 Total Dissipation (TO-220C)	P _C	100	W
最高结温 Junction Temperature	T _j	150	°C
贮存温度 Storage Temperature	T _{stg}	-55~+150	°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 =10mA, I _B =0	400	-	-	V
V(BR) _{CBO}	I _C =1mA, I _B =0	700	-	-	V
V(BR) _{EBO}	I _E =1mA, I _C =0	9	-	-	V
I _{CBO}	V _{CB} =700V, I _E =0	-	-	100	μA
I _{CEO}	V _{CE} =400V, I _B =0	-	-	50	μA
I _{EBO}	V _{EB} =9V, I _C =0	-	-	10	μA
Hfe(1)	V _{CE} =5V, I _C =5A	8	-	40	
Hfe(2)	V _{CE} =5V, I _C =8A	5	-	-	
V _{CE(sat)} (1)	I _C =5A, I _B =1A	-	-	1.2	V
V _{CE(sat)} (2)	I _C =12A, I _B =3A	-	-	2.0	V
V _{BE(sat)}	I _C =5A, I _B =1A	-	-	1.2	V
t _f	V _{CC} =24V I _C =5A, I _{B1} =-I _{B2} =1A	-	-	0.7	μS
t _s		-	-	3	μS
f _T	V _{CE} =10V, I _C =0.5A	4	-	-	MHz

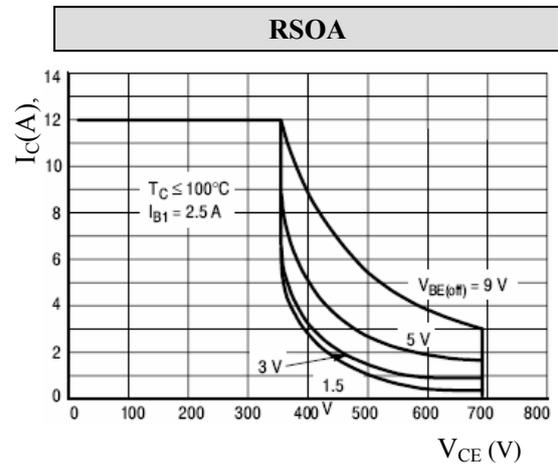
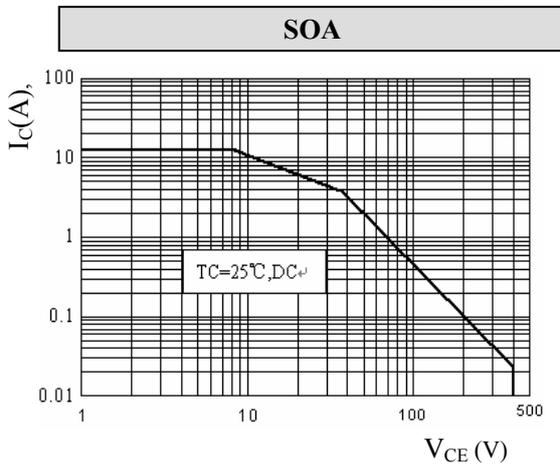
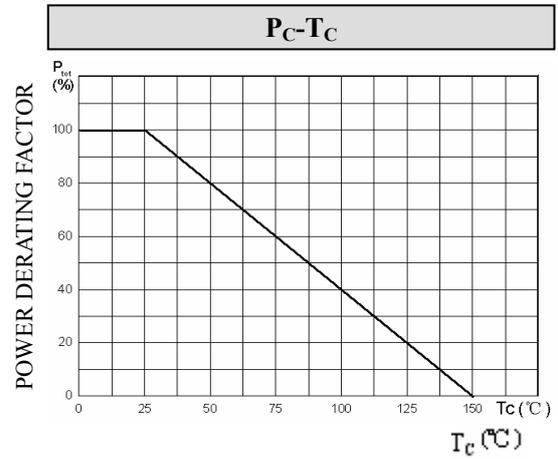
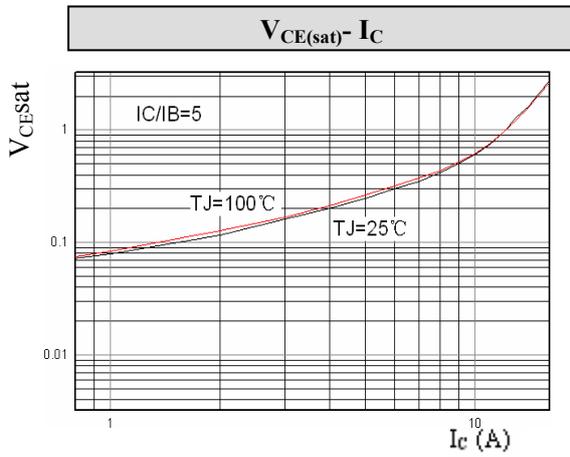
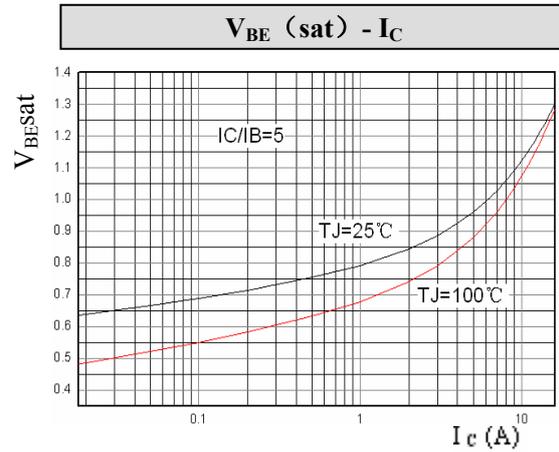
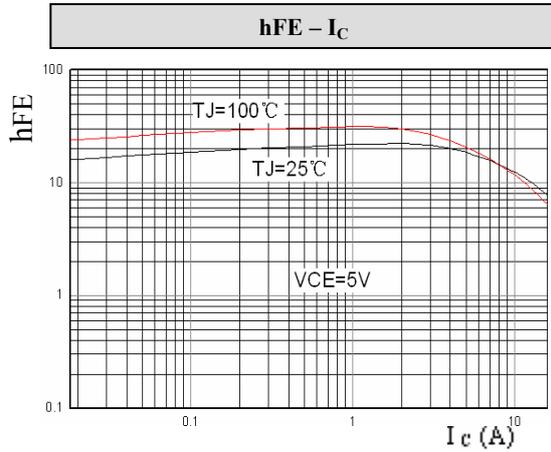
热特性 THERMAL CHARACTERISTIC

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-220C Thermal Resistance Junction Case TO-220C	R _{th(j-c)}	-	1.25	°C/W



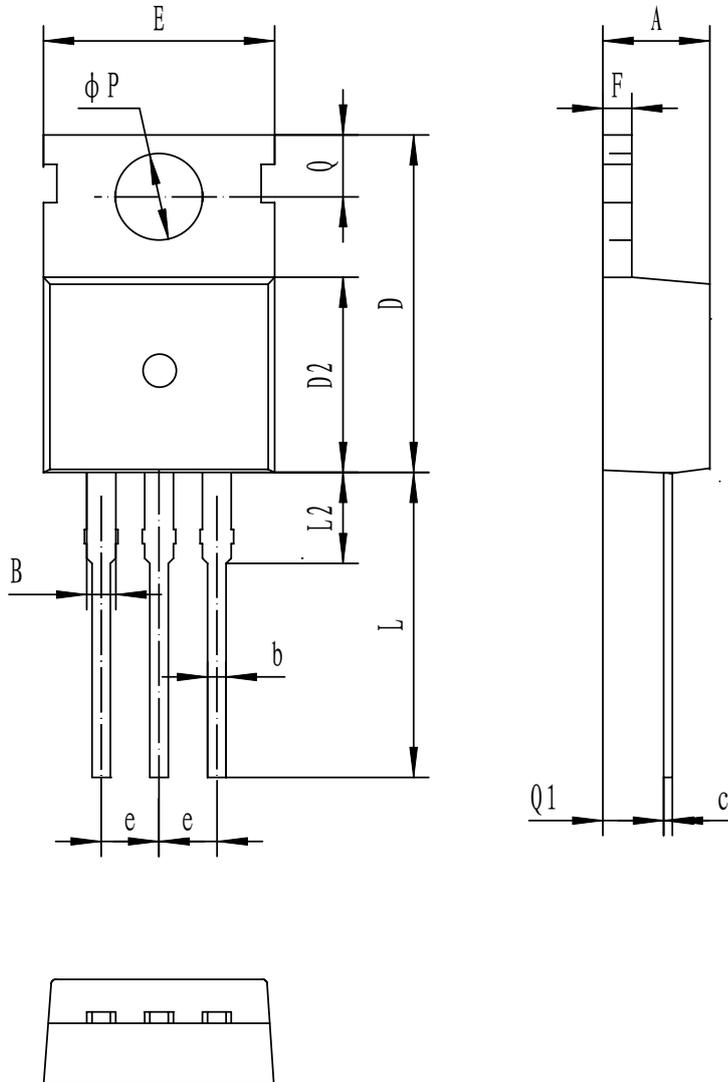


特征曲线 ELECTRICAL CHARACTERISTICS (curves)





TO-220C



符号 symbol	MIN	MAX
A	4.30	4.70
B	1.10	1.40
b	0.70	0.95
c	0.40	0.65
D	15.20	16.20
D2	9.00	9.40
E	9.70	10.10
e	2.39	2.69
F	1.25	1.40
L	12.60	13.60
L2	2.80	3.20
Q	2.60	3.00
Q1	2.20	2.60
P	3.50	3.80



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附录 (Appendix) : 修订记录 (Revision History)

日期 Date	旧版本 Last Rev.	新版本 New Rev.	修订内容 Description of Changes
2009-10-23	200905B	200910C	电话、传真号码升位

