Diode

普通二极管 (Diode)

Symbol	Parameter	
V_{RRM}	Peak repetitive reverse voltage	反向重复峰值电压
V_{RWM}	Working peak reverse voltage	反向工作峰值电压
V_R	DC blocking voltage	反向直流电压
$V_{R(RMS)}$	RMS reverse voltage	反向电压有效值
I_O	Average rectified output current	平均整流输出电流
$I_{F(AV)}$	Average forward current	正向平均电流
I_R	Reverse current	反向电流
I_{FSM}	Non-repetitive peak forward surge current	正向浪涌电流
$V_{(BR)}$	Reverse breakdown voltage	击穿电压
V_F	Forward voltage	正向直流电压
C_J	Junction capacitance	结电容
P_D	Power dissipation	耗散功率
T_j	Junction temperature	结温
T_{stg}	Storage temperature range	存储温度范围
$R_{\theta JA}$	Thermal resistance from junction to ambient	结到环境的热阻

Pin 二极管 (Pin Diode)

Symbol	Parameter	
V_R	Continuous reverse voltage	反向直流电压
I_F	Continuous forward current	正向直流电流
V_F	Forward voltage	正向电压
I_R	Reverse current	反向电流
C_d	Diode capacitance	二极管电容
r_d	Diode forward resistance	二极管正向电阻
P_{tot}	Total power dissipation	总的功率损耗
$R_{\theta JA}$	Thermal resistance from junction to ambient	结到环境的热阻
T_j	Junction temperature	结温
T_{stg}	Storage temperature range	存储温度范围
T_L	Maximum lead solder temperature	最大引脚焊接温度
V_{ESD}	ESD voltage	静电电压

TVS 二极管 (TVS Diode)

Symbol	Parameter	
I_{PP}	Peak pulse current	峰值脉冲电流
P_{PP}	Peak pulse power	峰值脉冲功率
V_C	Clampling voltage	箝位电压
I_R	Reverse leakage current	反向漏电流
$V_{(BR)}$	Breakdown voltage	击穿电压
V_{RWM}	Working peak reverse voltage	反向工作峰值电压
V_F	Forward voltage	正向电压
I_F	Forward current	正向电流
I_T	Test current	测试电流
C_J	Junction capacitance	结电容
T_j	Junction temperature	结温
T_{stg}	Storage temperature range	存储温度范围

稳压二极管（Zener Diode）

V_Z	Zener voltage	稳压值
I_{ZT}	Working current	工作电流
I_{ZK}	Inflection point current	拐点电流
Z_{ZT}	Working impedance	工作阻抗
Z_{ZK}	Inflection point impedance	拐点阻抗
V_R	Reverse voltage	反向电压
I_R	Reverse current	反向电流
V_F	Forward voltage	正向电压
I_F	Forward current	正向电流
P_d	Power dissipation	功率损耗
T_j	Junction temperature	结温
T_{stg}	Storage temperature range	存储温度范围
$R_{\theta JA}$	Thermal resistance from junction to ambient	结到环境的热阻

晶闸管(Thyristor)

Symbol	Parameter	
V_{DRM}	Peak repetitive off-state voltage	断态重复峰值电压
V_{RRM}	Peak repetitive reverse voltage	反向重复峰值电压
$I_{T(RMS)}$	RMS on-state current	额定通态电流
I_{TSM}	Non-repetitive surge peak on-state current	通态非重复浪涌电流
I_{GM}	Forward peak gate current	控制极重复峰值电流
V_{TM}	Peak forward on-state voltage	通态峰值电压
I_{GT}	Gate trigger current	控制极触发直流电流
V_{GT}	Gate trigger voltage	控制极触发电压
I_H	Holding current	维持电流
I_{DRM}	Peak repetitive off-state current	断态重复峰值电流
I_{RRM}	Peak repetitive reverse current	反向重复峰值电流
$P_{G(AV)}$	Average gate power dissipation	控制极平均功率
T_j	Junction temperature	结温
T_{stg}	Storage temperature range	存储温度范围

78/79 系列稳压管 (Three Terminal Voltage Regulator)

Symbol	Parameter	
V_I	Input voltage	输入电压
Vo	Output voltage	输出电压
ΔVo	Load regulation	负载调整率
ΔVo	Line regulation	线性调整率
Iq	Quiescent current	静态电流
ΔIq	Quiescent current change	静态电流变化量
V_N	Output noise voltage	输出噪声电压
RR	Ripple rejection	纹波抑制比
Vd	Dropout voltage	跌落电压
Isc	Short circuit current	短路电流
Ipk	Peak current	峰值电流
T_{opr}	Operating junction temperature range	工作结温范围
T_{stg}	Storage temperature range	存储温度范围
$R_{\theta JA}$	Thermal resistance from junction to ambient	结到环境的热阻

431 系列稳压管 (Adjustable Shunt Regulator)

Symbol	Parameter	
V_{KA}	Cathode voltage	阴极电压
I_K	Cathode current range(continous)	阴极电流
I_{ref}	Reference input current range,continous	基准输入电流
P_D	Power dissipation	耗散功率
$R_{\theta JA}$	Thermal resistance from junction to ambient	结到环境的热阻
T_{opr}	Operating junction temperature range	工作结温范围
T_{stg}	Storage temperature range	存储温度范围
V_{ref}	Reference input voltage	基准输入电压
$\Delta V_{ref(dev)}$	Deviation of reference input voltage over full temperature range	全温度范围内基准输入电压的偏差
$\Delta V_{ref}/\Delta V_{KA}$	Ratio of change in reference input voltage to the change in cathode voltage	基准输入电压变化量与阴极电压变化量的比
$\Delta I_{ref(dev)}$	Deviation of reference input current over full temperature range	全温度范围内基准输入电流的偏差
I_{min}	Minimum cathode current for regulation	稳压时最小负极电流
I_{off}	Off-state cathode current	关断状态阴极电流
$\|Z_{KA}\|$	Dynamic impedance	动态阻抗

1117 系列稳压管 (Low Dropout Linear Regulator)

Symbol	Parameter	
V_{IN}	Input voltage	输入电压
I_O	Output current	输出电流
T_J	Junction temperature	结温
T_{stg}	Storage temperature range	存储温度范围
V_{ESD}	ESD voltage	静电电压
T_{OPR}	Operating junction temperature	工作结温范围
V_{ref}	Reference voltage	基准输出电压值
V_O	Output voltage	输出电压
LNR	Line regulation	线性调整率
LDR	Load regulation	负载调整率
V_D	Dropout voltage	跌落电压
I_{limit}	Current limit	维持电压调整的最小负载电流
I_{adj}	Adjust pin current	调整端电流

$I_{O(min)}$	Minimum load Current	最小负载电流
Iq	Quiescent current	静态电流
RR	Ripple rejection	纹波抑制比
	Temperature stability	温度稳定性
	Long-term stability	长期稳定性
	RMS output noise (% of V_{OUT})	RMS 输出噪声
	Thermal resistance, junction to case	热阻
	Thermal shutdown	热关断
	Thermal shutdown hysteresis	热关断延迟
$R_{\theta JA}$	Thermal resistance from junction to ambient	结到环境的热阻

317 系列稳压管 (Three-terminal Positive Voltage Regulator)

Symbol	Parameter	
V_I-V_O	Input-output voltage differential	输入输出电压差
T_L	Maximum lead solder temperature	最大引脚焊接温度
P_D	Power dissipation	耗散功率
T_J	Junction temperature	结温
T_{opr}	Operating junction temperature	工作结温
T_{stg}	Storage temperature	存储温度
V_O	Reference voltage	基准输出电压
LNR	Line regulation	线性调整率
LDR	Load regulation	负载调整率
I_{ADJ}	Adjustable pin current	调整端电流
$\triangle I_{ADJ}$	Adjustable pin current change	调整端电流变化量
$I_{L(min)}$	Minimum load current to maintain regulation	维持电压调整的最小负载电流
$I_{O(max)}$	Maximum output current	最大输出电流
RR	Ripple rejection	纹波抑制比

普通晶体管 (Transistor)

Symbol	Parameter	
V_{CBO}	Collector-base voltage	发射极开路,集电极-基极电压
V_{CEO}	Collector-emitter voltage	基极开路,集电极-发射极电压
V_{EBO}	Emitter-base voltage	集电极开路,发射极-基极电压
I_C	Collector current	集电极电流
P_C	Collector power dissipation	集电极耗散功率
T_J	Junction temperature	结温
T_{stg}	Storage temperature range	存储温度范围
$V_{(BR)CBO}$	Collector-base breakdown voltage	发射极开路,集电极-基极反向电压
$V_{(BR)CEO}$	Collector-emitter breakdown voltage	基极开路,集电极-发射极反向电压
$V_{(BR)EBO}$	Emitter-base breakdown voltage	集电极开路,发射极-基极反向电压
I_{CBO}	Collector cut-off current	发射极开路,集电极-基极截止电流
I_{EBO}	Emitter cut-off current	集电极开路,发射极-基极截止电流
I_{CEO}	Collector cut-off current	基极开路,集电极-发射极截止电流
h_{FE}	DC current gain	共发射极正向电流传输比的静态值
$V_{CE(sat)}$	Collector-emitter saturation voltage	集电极-发射极饱和电压
$V_{BE(sat)}$	Base-emitter saturation voltage	基极-发射极饱和电压
$V_{BE(on)}$	Base-emitter turn-on voltage	基极-发射开启电压
V_{BE}	Base-emitter voltage	基极-发射极电压
f_T	Transition frequency	特征频率
C_{ob}	Collector output capacitance	共基极输出电容
C_{ib}	Collector input capacitance	共基极输入电容
NF	Noise figure	噪声系数
t_{on}	Turn-on time	开通时间
t_{off}	Turn-off time	关断时间
t_r	Rise time	上升时间
t_s	Storage time	存储时间
t_f	Fall time	下降时间
t_d	Delay time	延迟时间

数字晶体管 (Digital Transistor)

Symbol	Parameter	
V_{CC}	Supply voltage	电源电压
V_{IN}	Input voltage	输入电压
I_O	Output current	输出电流
P_D	Power dissipation	损耗功率
$V_{I(off)}$	Input-off voltage	输入截止电压
$V_{I(on)}$	Input-on voltage	输入开启电压
$V_{O(on)}$	Output voltage	输出电压
I_I	Input current	输入电流
$I_{O(off)}$	Output current	输出截止电流
G_I	DC current gain	直流增益
R_1	Input resistance	输入电阻
R_2/R_1	Resistance ratio	电阻率
f_T	Transition frequency	传输频率
T_J	Junction temperature	结温
T_{stg}	Storage temperature range	存储温度范围
V_{CBO}	Collector-base voltage	发射极开路,集电极-基极反向电压
V_{CEO}	Collector-emitter voltage	基极开路,集电极-发射极反向电压
V_{EBO}	Emitter-base voltage	集电极开路,发射极-基极反向电压

MOS 管 (MOSFET)

Symbol	Parameter	
V_{DS}	Drain-source voltage	漏-源电压
V_{GS}	Gate-source voltage	栅-源电压
E_{AS}	Single pulse avalanche energy	单脉冲雪崩击穿能量
I_D	Continuous drain current	漏极直流电流
I_{DM}	Pulsed drain current	最大脉冲漏电流
P_D	Power dissipation	耗散功率
$R_{\theta JA}$	Thermal resistance from junction to ambient	结到环境的热阻
T_J	Junction temperature	结温
T_{stg}	Storage temperature range	存储温度范围
T_L	Maximum lead solder temperature	最大引脚焊接温度
$V_{(BR)DSS}$	Drain-source breakdown voltage	漏源击穿电压
$V_{(GS)th}$	Gate threshold voltage	栅源阈值电压
I_{GSS}	Gate-body leakage current	漏-源短路的栅极电流
I_{DSS}	Zero gate voltage drain curent	栅-源短路的漏极电流
$R_{DS(on)}$	Drain-source on-resistance	漏源通态电阻
g_{fs}	Forward transconductance	跨导
V_{SD}	Diode forward voltage	体内反并联二极管正向压降
C_{iss}	Input capacitance	栅-源输入电容
C_{oss}	Output capacitance	漏-源输出电容
C_{rss}	Reverse transfer capacitance	反向传输电容
R_g	Gate resistance	栅极电阻
$t_{d(on)}$	Turn-on delay time	开通延迟时间
t_r	Rise time	上升时间
$t_{d(off)}$	Turn-off delay time	关断延迟时间
t_f	Fall time	下降时间
$I_{D(on)}$	On-State drain current	通态漏极电流
I_S	Diode forward current	体内反并联二极管正向电流
I_{SM}	Pulse diode forward current	体内反并联二极管最大脉冲正向电流
t_{rr}	Diode reverse recovery time	体内反并联二极管反向恢复时间
Q_{rr}	Diode reverse recovery charge	体内反并联二极管反向恢复电荷
t_a	Diode Reverse Recovery Fall Time	体内反并联二极管反向恢复下降时间
t_b	Diode Reverse Recovery Rise Time	体内反并联二极管反向恢复上升时间