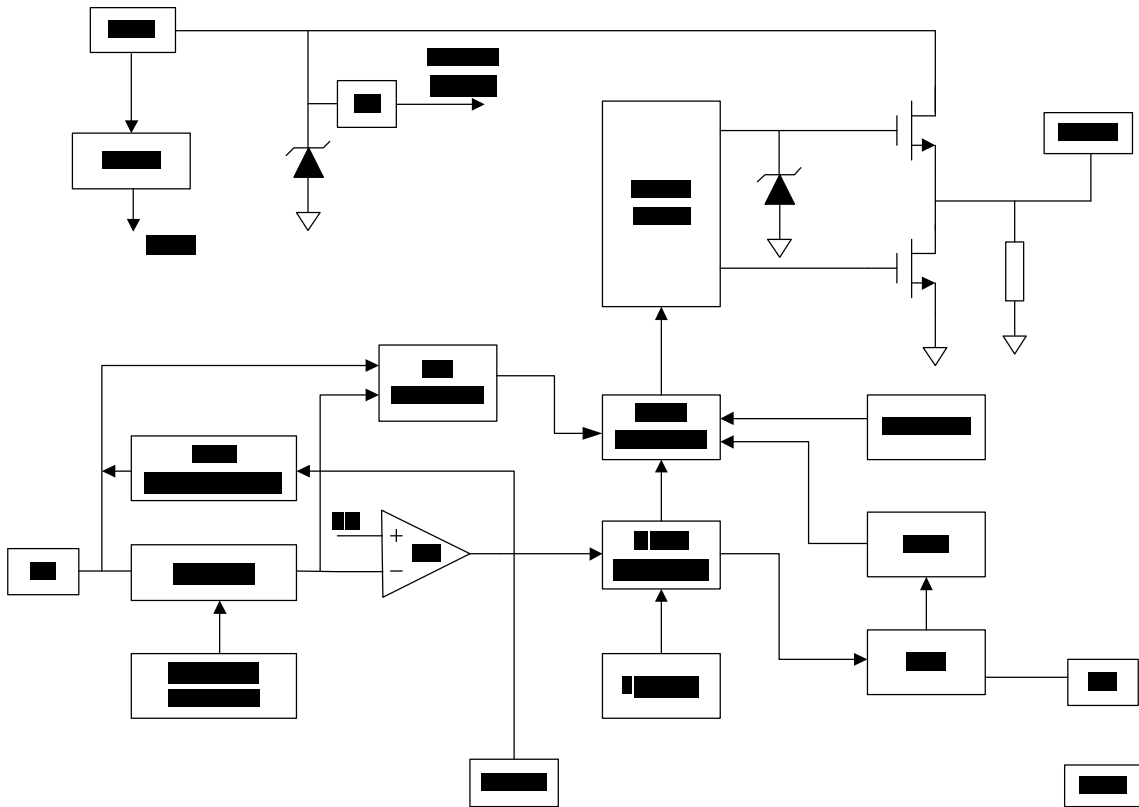


SM8513





	SOP8	SOT23-6	
GATE	1	1	
VDD	2	6	
NC	3 6	-	
COMP	4	5	
FB	5	4	SENSE PWM FB
CS	7	3	
GND	8	2	

TA= 25

VDD		<30V	V
IDD _{clamp}		<10	mA
V _{FB}	FB	-0.3 7.0	V
V _{COMP}	COMP	-0.3 7.0	V
V _{CS}	CS	-0.3 7.0	V
T _A		-20 85	
T _{stg}		-40 150	
V _{ESD}		2000	V
R _{θja}		SOP8	140
		SOT23-6	230

(TA=25)

VDD						
IDD _{start}		VDD=13V	-	5	20	μA
IDD _{op}		V _{FB} =2.0V CS=0.0V VDD=20V	1.2	2.0	3.5	mA
VDD _{OFF}	VDD		7.5	8.5	10.0	V
VDD _{ON}	VDD		13.5	14.5	16.0	V
VDD _{clamp}	VDD	I _{DD} =10mA	30.5	32.5	34.5	V
VDD _{OVP}	VDD		27.5	29.5	31.5	V
CS						
T _{LEB}	LEB		-	540	-	nS
V _{th_oc}			909	923	937	mV
T _{d_oc}	OCP		-	150	-	nS
Z _{sense_IN}			-	50	-	KΩ
T _{ss}			-	10	-	mS
Freq						
Freq _{Max}			57	63	69	KHz
Freq _{Nom}			-	55	-	KHz
Freq _{startup}		V _{FB} =0.0V COMP=5.0V	13	14	17	KHz
Δf/Freq			-	±4	-	%
FB						
V _{ref_EA}	EA		1.98	2.00	2.04	V
Gain	EA DC		-	60	-	dB
I _{COMP_MAX}		V _{FB} =2.0V COMP=0.0V	35	42	50	μA
GATE						
V _{OL}		VDD 18V, I _o 20mA	-	-	0.8	V
V _{OH}		VDD 18V, I _o -20mA	10	-	-	V

V_{clamp}			-	17.5	-	V
T_r		$C_L=1nf$	-	610	-	nS
T_f		$C_L=1nf$	-	160	-	nS

SM8513

AC/DC

±5% SM8513

TL431

VDD

VDD



20uA



VDD

$$P_o = \frac{1}{2} \times L_p \times F_{sw} \times I_p^2 \quad 3$$

L_p I_p 3

$$F_{sw} = \frac{1}{2 \times T_{DEMAG}} \quad (4)$$

T_{DEMAG} L_p F_{sw}
SM8513 $\pm 10\%$



SM8513



LEB
SM8513 CS

CS



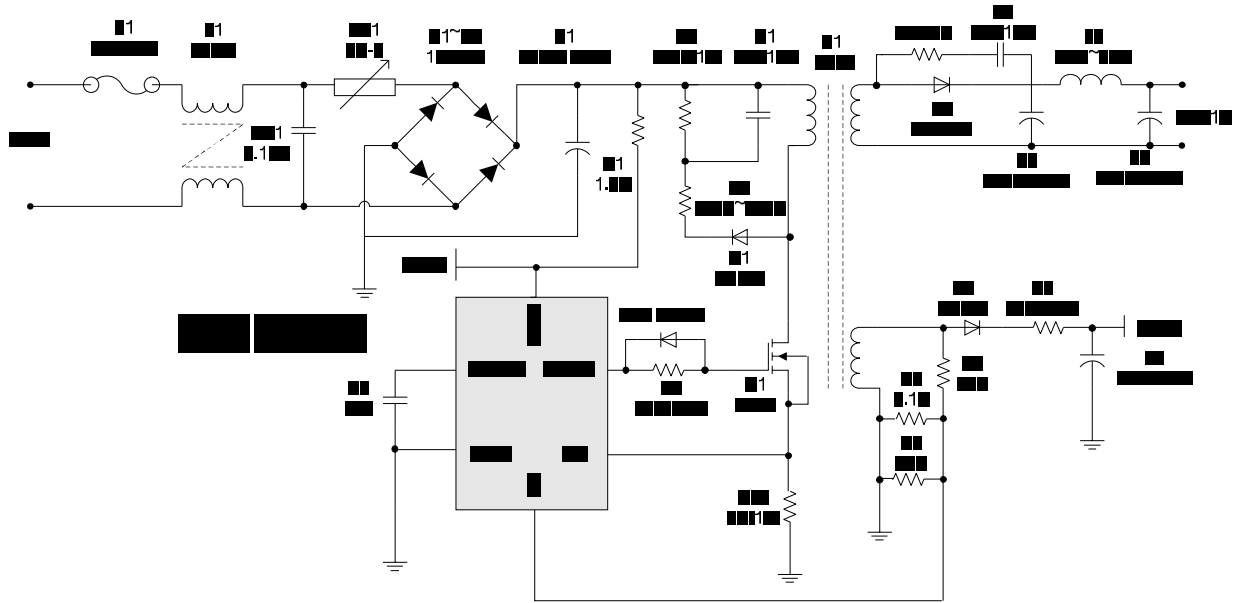
GATE

SM8513 GATE MOSFET GATE 17.5V
MOSFET VDD MOSFET

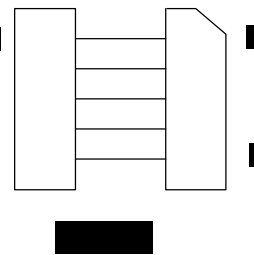
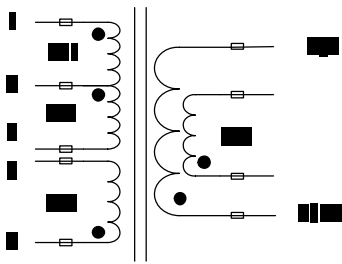


SM8513 VDD VDD VDD VDD
VDD VDD VDD VDD

◆ SM8513 12V/1A LED



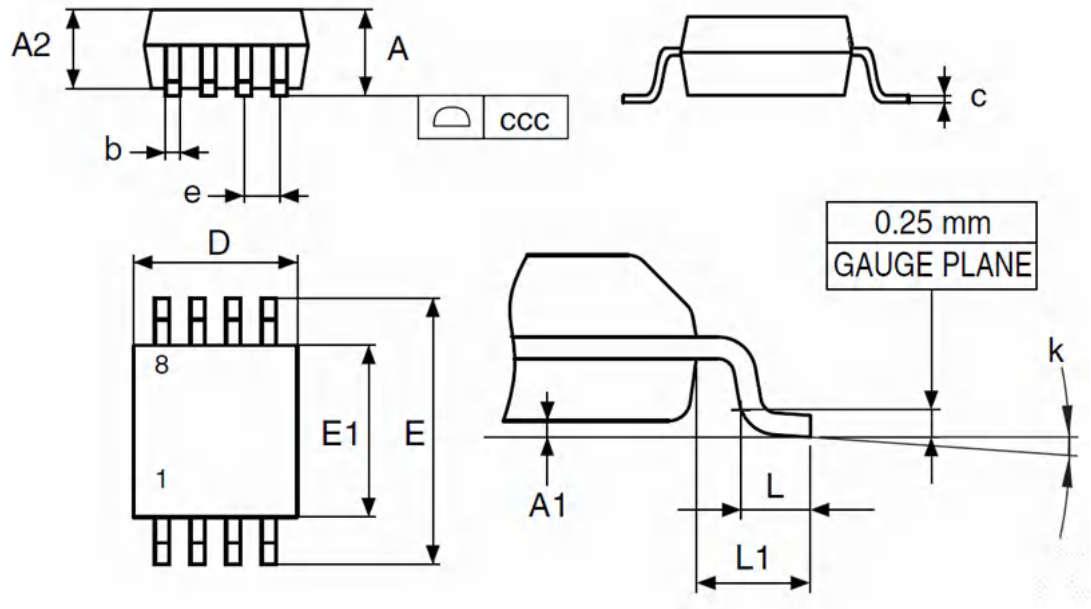
◆ SM8513 12V/1A LED



注意：

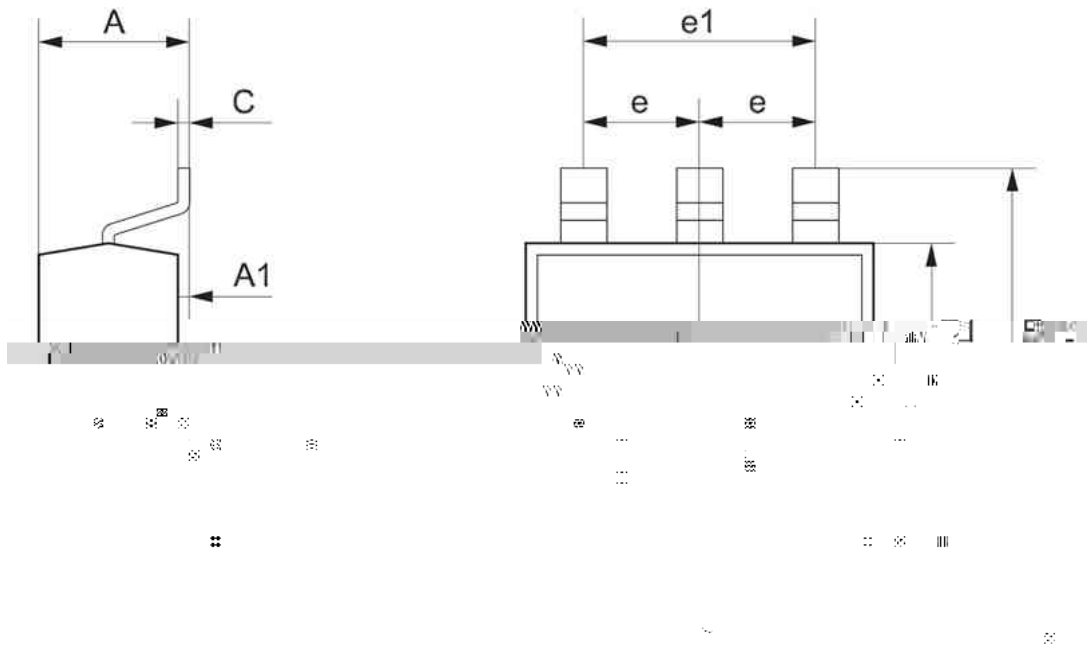
1. 变压器初级绕组匝数...
2. 变压器次级绕组匝数...
3. 变压器初级绕组...
4. 变压器次级绕组...
5. 变压器初级绕组...
6. 变压器次级绕组...
7. 变压器初级绕组...
8. 变压器次级绕组...

SOP8



DIMENSIONS						
REF.	mm			inch		
	MIN.	TYP.	MAX.	MIN.	TYP.	MAX.
A			1.75			0.0689
A1	0.1		0.25	0.0039		0.0098
A2	1.25			0.0492		
b	0.28		0.48	0.011		0.0189
c	0.17		0.23	0.0067		0.0091
ccc			0.1			0.0039
D	4.8	4.9	5	0.189	0.1929	0.1969
E	5.8	6	6.2	0.2283	0.2362	0.2411
E1	3.8	3.9	4	0.1496	0.1535	0.1575
e		1.27			0.05	
h	0.25		0.5	0.0098		0.0197
k	0		8	0		8
L	0.4		1.27	0.0157		0.05
L1		1.04			0.0409	

SOT23-6



DIMENSIONS						
REF.	mm			inch		
	MIN.	TYP.	MAX.	MIN.	TYP.	MAX.
A	0.90		1.45	0.354		0.571
A1	0.00		0.15	0.00		0.059
A2	0.90		1.30	0.354		0.512
b	0.35		0.50	0.137		0.197
C	0.09		0.20	0.035		0.078
D	2.80		3.00	1.102		1.1181
E	2.60		3.00	1.023		1.1181
E1	1.50		1.75	0.590		0.688
e		0.95			0.374	
e1		1.9			0.748	
L	0.35		0.55	0.137		0.216