

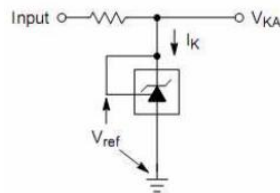
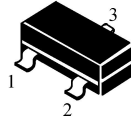
SOT-23 Low Voltage Three Terminal Adjustable Regulator 低压三端可调稳压 IC

■ Features 特点

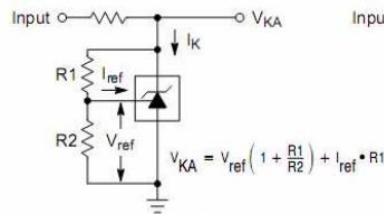


SOT-23

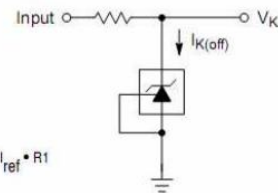
1. Reference
2. Cathode
3. Anode



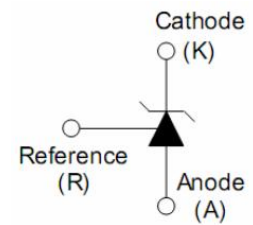
Test Circuit
for $V_{KA} = V_{ref}$



Test Circuit
for $V_{KA} > V_{ref}$



Test Circuit
for $I_{K(off)}$



Symbol

■ Absolute Maximum Ratings 最大额定值

($T_A = 25^\circ\text{C}$ unless otherwise noted 如无特殊说明, 温度为 25°C)

Characteristic 特性参数	Symbol 符号	Rat 额定值	Unit 单位
Cathode to Anode Voltage 阴极到阳极电压	V_{KA}	20	V
Cathode Current Range 工作电流	I_K	100	mA
Reference Input Current Range 输入电流	I_{REF}	3	mA
Power dissipation 耗散功率	P_D	200	mW
Thermal Resistance Junction-Ambient 热阻	$R_{\theta JA}$	625	$^\circ\text{C}/\text{W}$
Solder Temperature 焊接温度/时间	T_d	260/10	$^\circ\text{C}/\text{s}$
Operating Ambient Temperature 工作温度	T_{op}	0~70	$^\circ\text{C}$
Junction and Storage Temperature 结温和储藏温度	T_J, T_{stg}	-40to+125 $^\circ\text{C}$	

■ Device Marking 产品打标

TL432M-0.5%/1%-6AF=432

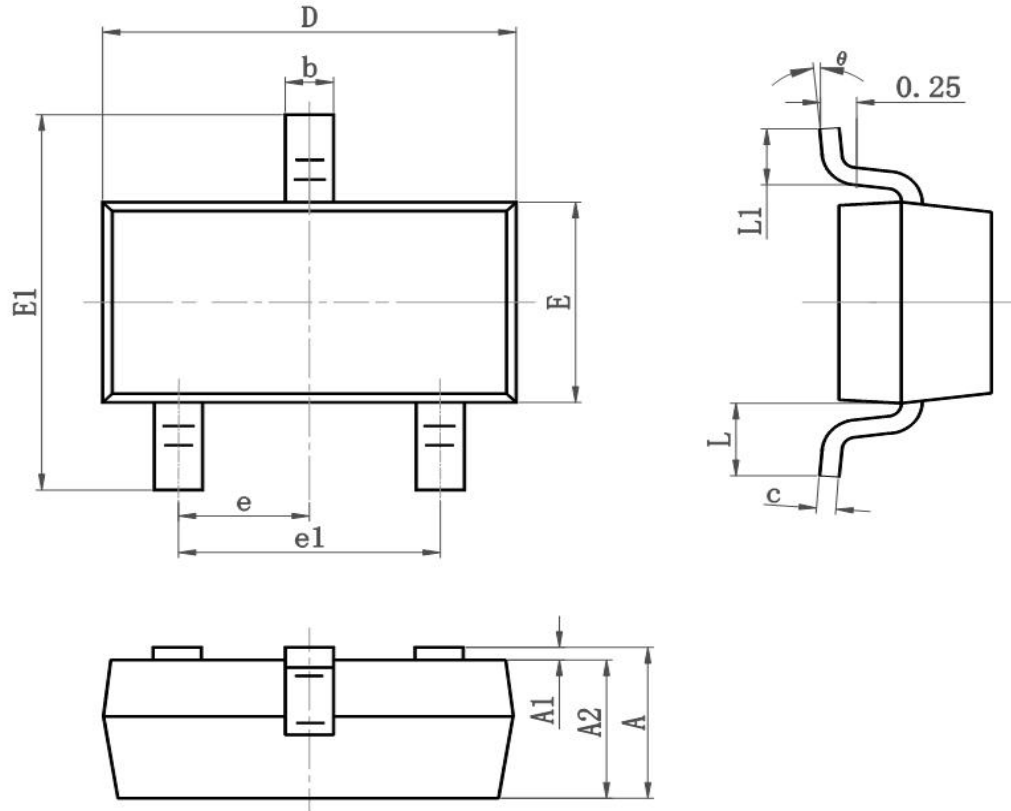


■Electrical Characteristics 电特性

($V_{KA}=V_{REF}$ $I_{KA}=10mA$ $T_a=25^{\circ}C$ unless otherwise noted 如无特殊说明)

Characteristic 特性参数		Symbol 符号	Test Condition 测试条件	Min 最小值	Type 典型值	Max 最大值	Unit 单位
Reference Input Voltage 基准电压	0.5%	V_{REF}	$V_{KA}=V_{REF}$ $I_{KA}=10mA$	1.234	1.24	1.247	V
	1%			1.228	1.24	1.252	
Deviation of reference Input Voltage Over temperature 标准温度内基准电压偏差		$\Delta V_{REF}/\Delta T$	$V_{KA}=V_{REF}$ $I_{KA}=10mA$ $0 \sim 70^{\circ}C$		10	25	mV
Ratio of Change in Reference Input Voltage Change in Cathode Voltage 阴极电压与基准电压变化比		$\Delta V_{REF}/\Delta V_{KA}$	$I_{KA}=10mA$ $\Delta V_{KA}=18V \sim V_{REF}$		-1	-2.7	mV/V
Reference Input Current 基准电流		I_{REF}	$I_{KA}=10mA$ $R1=10k\Omega, R2=\infty$		0.25	0.5	μA
Deviation of Reference Input Current Over Full Temperature Range 标准温度内基准电流偏差		$\Delta I_{REF}/\Delta T$	$I_{KA}=10mA$ $R1=10k\Omega, R2=\infty$ $T_A=0 \sim 70^{\circ}C$		0.05	0.3	μA
Minimum Cathode Current for Regulation 最小阴极电流		$I_{KA(MIN)}$	$V_{KA}=V_{REF}$		60	80	mA
Off-state Cathode Current 关闭状态阴极电流		$I_{KA(OFF)}$	$V_{KA}=18V$ $V_{REF}=0V$		0.04	0.5	μA
Dynamic Impedance 输出阻抗		Z_{KA}	$V_{KA}=V_{REF}$ $I_{KA}=1 \sim 100mA$ $f \leq 1kHz$		0.2	0.4	Ω

■SOT-23 Dimension 外形封装尺寸



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	0.900	1.150	0.035	0.045
A1	0.000	0.100	0.000	0.004
A2	0.900	1.050	0.035	0.041
b	0.300	0.500	0.012	0.020
c	0.080	0.150	0.003	0.006
D	2.800	3.000	0.110	0.118
E	1.200	1.400	0.050	0.055
E1	2.250	2.550	0.089	0.100
e	0.900	1.00	0.035	0.039
e1	1.800	2.000	0.071	0.079
L	0.500	0.600	0.020	0.024
L1	0.300	0.500	0.012	0.020
θ	0°	8°	0°	8°