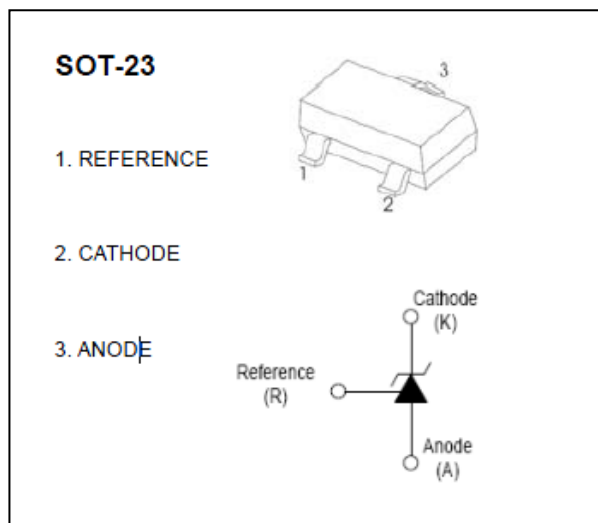




■ Features

- The output voltage can be adjusted to 36V
- Low dynamic output impedance, its typical value is 0.2Ω
- Trapping current capability is 1 to 100mA
- The typical value of the equivalent temperature factor in the whole temperature scope is 50 ppm/°C
- The effective temperature compensation in the working range of full temperature
- Low output noise voltage
- Fast on -state response

■ Outline Dimensions and Mark



■ ABSOLUTE MAXIMUM RATINGS

Parameter	Symbol	Value	Units
Cathode Voltage	VKA	37	V
Cathode Current Range (Continuous)	IKA	-100~+150	mA
Reference Input Current Range	Iref	0.05~+10	mA
Power Dissipation	PD	300	mW
Thermal Resistance from Junction to Ambient	RθJA	417	°C/W
Operating Ambient Temperature Range	Topr	-25~+85	°C
Storage temperature Range	Tstg	-65~+150	°C
Operating Junction Temperature	Tj	150	°C

■ ELECTRICAL CHARACTERISTICS (Ta=25°C unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Reference input voltage	Vref	VKA=VREF, IKA=10mA	2.475	2.5	2.525	V
Deviation of reference Input voltage over temperature (note)	VΔref /TΔ	VKA =VREF, IKA =10mA Tmin≤Ta≤Tmax		4.5	17	mV
Ratio of change in reference Input voltage to the change in cathode voltage	Δref /VΔKA	IKA=10mA	ΔVKA =10V~VREF	-1.0	-2.7	mV/V
			ΔVKA =36V~10V	-0.5	-2.0	mV/V
Reference input current	Iref	IKA= 10mA,R1=10kΩ R2=∞		1.5	4	μA
Deviation of reference input current over full temperature range	ΔIref /TΔ	IKA=10mA, R1=10kΩ R2=∞ TA=-25~+85°C		0.4	1.2	μA
Minimum cathode current for regulation	IKA(min)	VKA=VREF		0.45	1.0	mA
Off-state cathode current	IKA(OFF)	VKA=36V ,VREF=0		0.05	1.0	μA
Dynamic impedance	ZKA	VKA=VREF, IKA=1 to 100mA f≤1.0kHz		0.15	0.5	Ω

Note: TMIN=0°C , TMAX=+70°C

■ CLASSIFICATION of Vr

Rank	0.5%	1%
Range	2.487-2.513	2.475-2.525

■ Typical Characteristics

Figure 1. Test Circuit for $V_{KA} = V_{ref}$

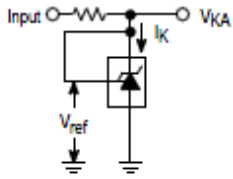


Figure 2. Test Circuit for $V_{KA} > V_{ref}$

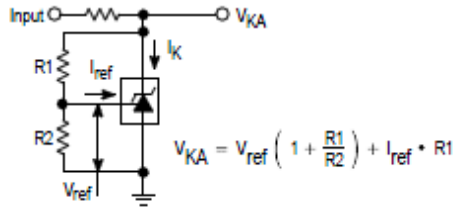
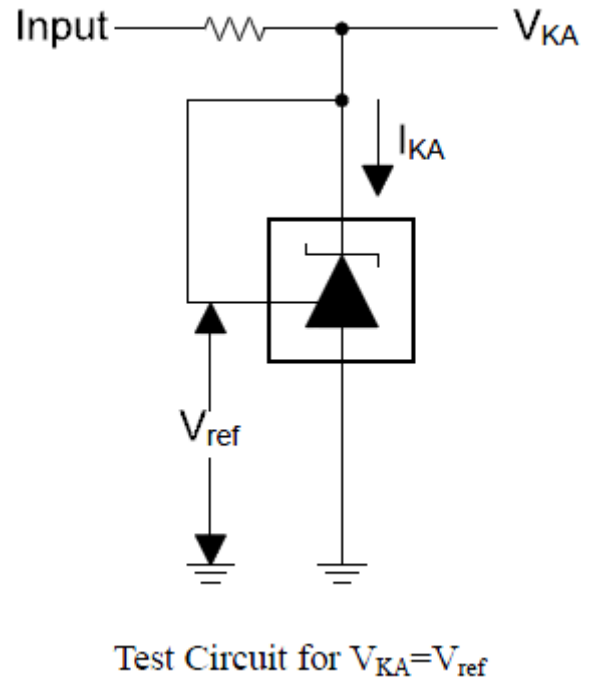
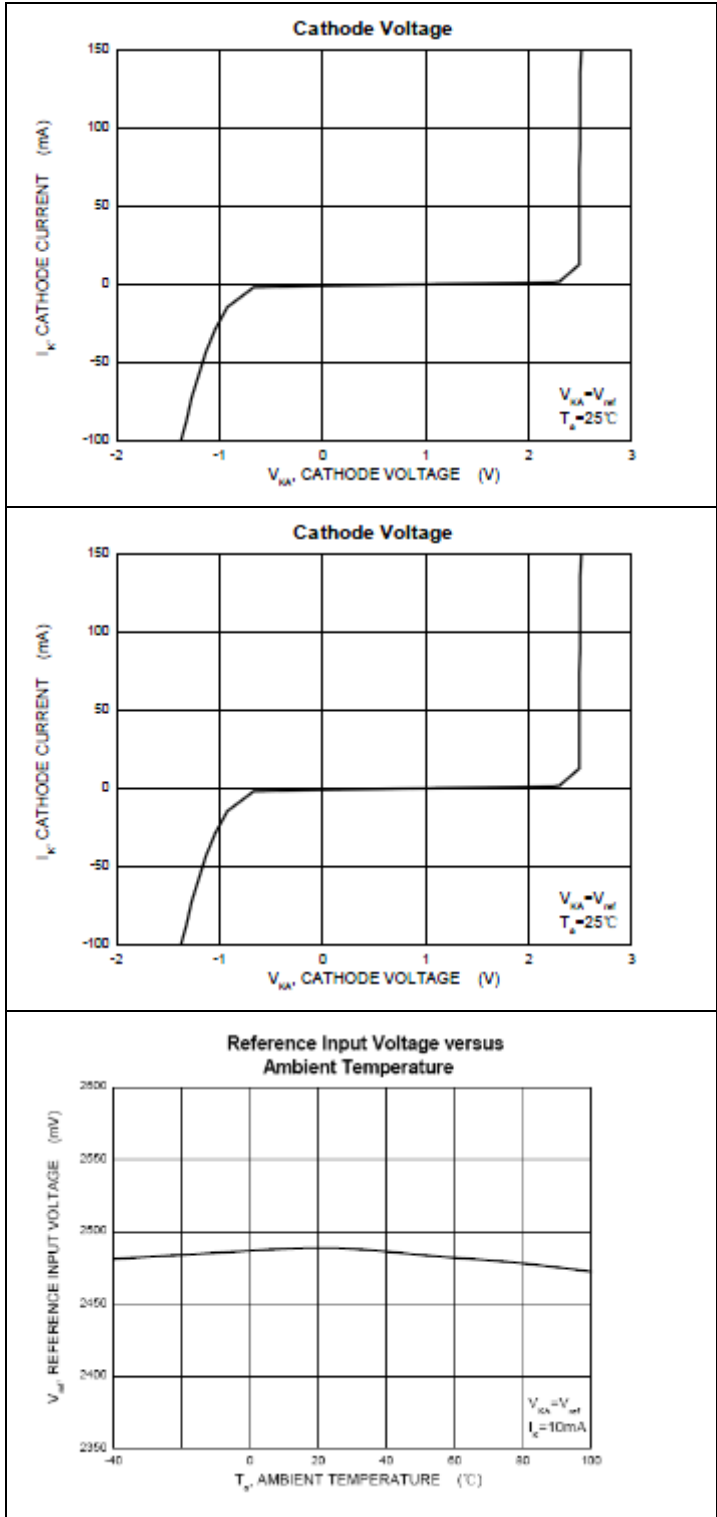
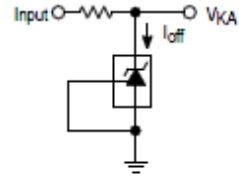
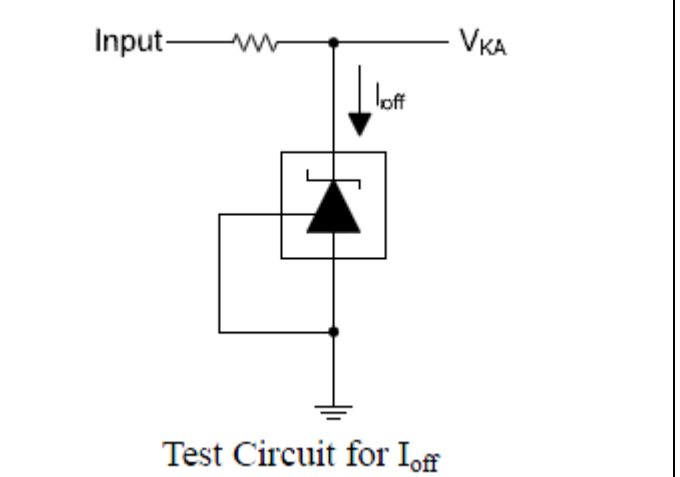
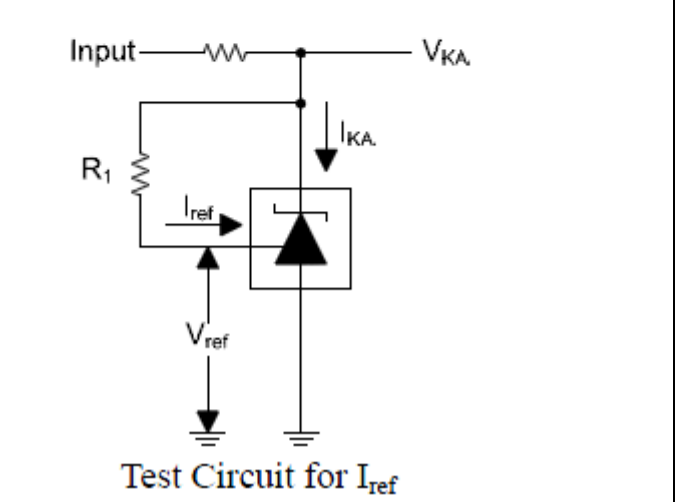
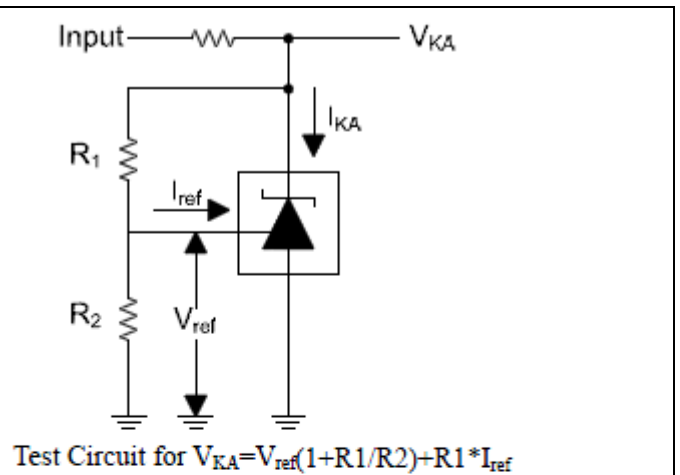
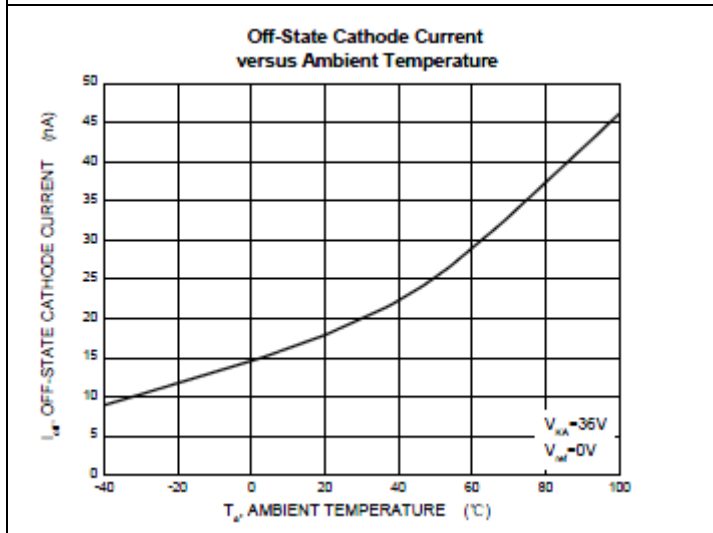
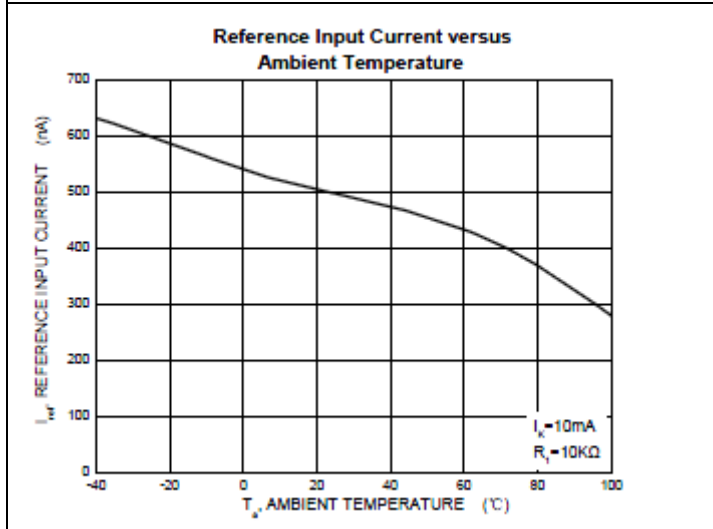
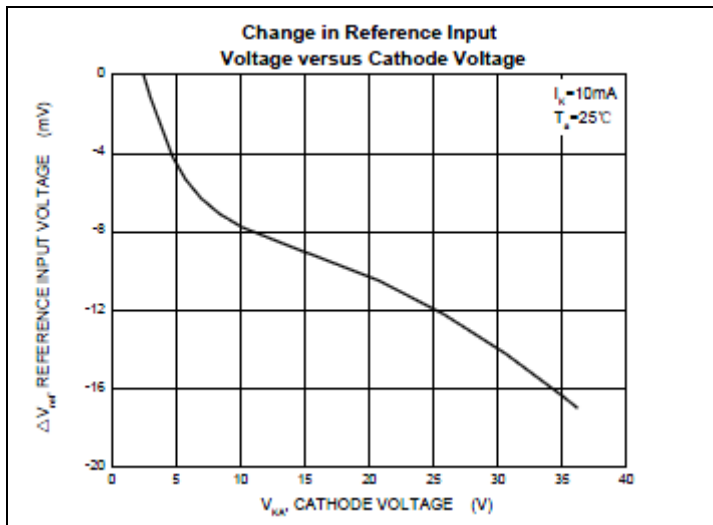
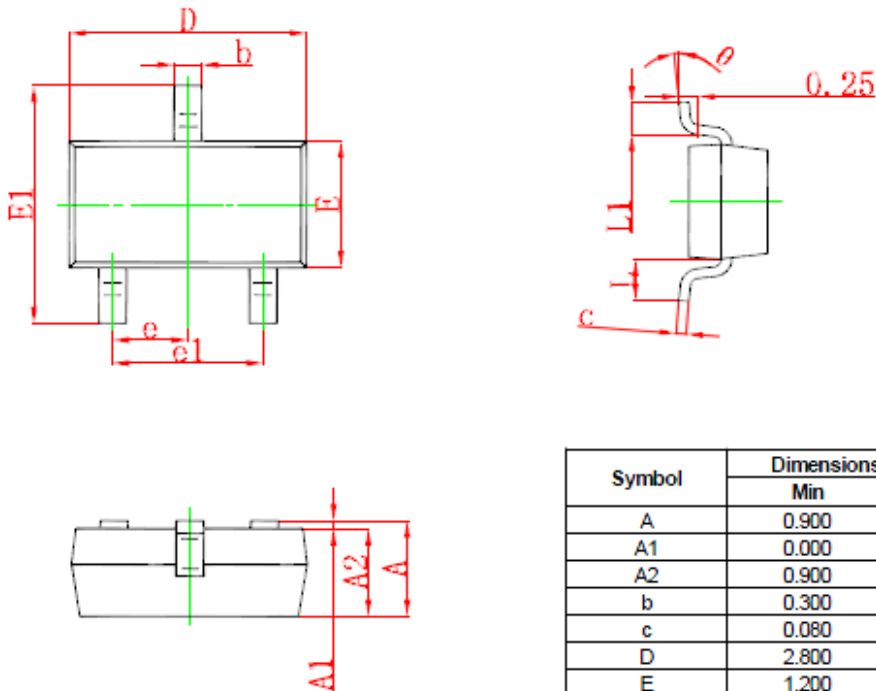


Figure 3. Test Circuit for I_{off}

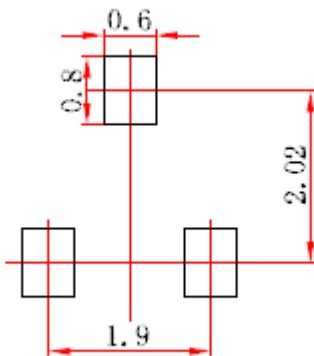


■ Typical Characteristics



■SOT-23 Package Outline Dimensions


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	0.047	0.055
E1	2.250	2.550	0.089	0.100
e	0.950 TYP		0.037 TYP	
e1	1.800	2.000	0.071	0.079
L	0.550 REF		0.022 REF	
L1	0.300	0.500	0.012	0.020
θ	0°	8°	0°	8°

■SOT-23 Suggested pad Layout


Note:

1. Controlling dimension millimeters
2. General tolerance:±0.05mm
3. The pad layout is for reference purposes only