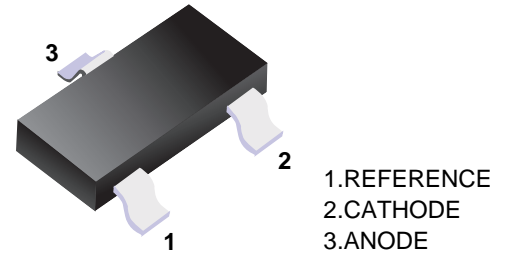


■ Adjustable Accurate Reference Source

■ Features

- Low Voltage Operation : 1.24 V
- Programmable Out Voltage to 15V
- Sink Current Capability of 1 mA to 100 mA
- Equivalent Full-Range Temperature Coefficient of 50ppm/°C
- Temperature Compensated for Operation over Full Rated Operating Temperature Range
- Trimmed Bandgap to 5%



■ Simplified outline(SOT-23)

■ Marking

Marking	432
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■ Absolute Maximum Ratings Ta = 25°C

Parameter	Symbol	Rating	Unit
Cathode Voltage	V <sub>KA</sub>	15	V
Continuous Cathode Current Range	I <sub>KA</sub>	100	mA
Reference Input Current Range	I <sub>REF</sub>	-0.05 to 3	mA
Total Power Dissipation	P <sub>D</sub>	370	mW
Junction Temperature	T <sub>J</sub>	-40 to 150	°C
Operating Temperature	T <sub>OPR</sub>	0 to 70	°C
Storage Temperature	T <sub>STG</sub>	-65 to 150	°C

■ Electrical Characteristics Ta = 25°C

Parameter	Symbol	Testconditons	Min	Typ	Max	Unit
Reference Input Voltage	V <sub>ref</sub>	V <sub>KA</sub> =V <sub>REF</sub> , I <sub>KA</sub> =10mA	1.216	1.24	1.264	V
Deviation of reference Input Voltage Over Full Temperature Range	ΔV <sub>ref</sub> /ΔT	V <sub>KA</sub> =V <sub>REF</sub> , I <sub>KA</sub> =10mA T <sub>A</sub> =Full Range		10	25	mV
Ratio Of Change in Reference Input Voltage to the change in Cathode Voltage	ΔV <sub>ref</sub> /ΔV <sub>KA</sub>	V <sub>KA</sub> =1.25V to 14.5V		1.0	2.7	mV/V
Reference input Current	I <sub>ref</sub>	R <sub>1</sub> =10KΩ R <sub>2</sub> =∞		0.5	1	uA
Deviation Of Reference Input Current Over Full Temperature Range	ΔI <sub>ref</sub> /ΔT	R <sub>1</sub> =10KΩ R <sub>2</sub> =∞ T <sub>A</sub> =fullTemperature		0.05	0.3	uA
Minimum cathode current for regulation	I <sub>KA</sub> (min)	V <sub>KA</sub> = V <sub>REF</sub>		60	80	uA
Off-state cathode Current	I <sub>KA</sub> (OFF)	V <sub>KA</sub> =15V ,V <sub>REF</sub> =0		0.04	0.5	uA
Dynamic impedance	Z <sub>KA</sub>	V <sub>KA</sub> =V <sub>REF</sub> , I <sub>KA</sub> =0.1 to 20mA f≤1.0KHz		0.2	0.4	Ω

■ CLASSIFICATION OF V<sub>ref</sub>

Rank	0.5%	1%	2%
Range	1.2330~1.2460	1.2276~1.2524	1.2160~1.2640

■ Typical Characteristics

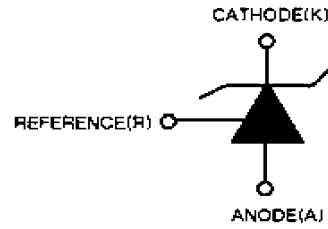
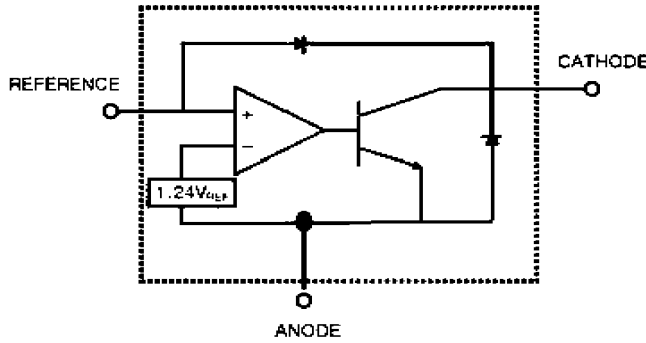


Fig. 1 Test Circuit for  $V_{KA} = V_{REF}$

Fig. 2 Test Circuit for  $V_{KA} \geq V_{REF}$

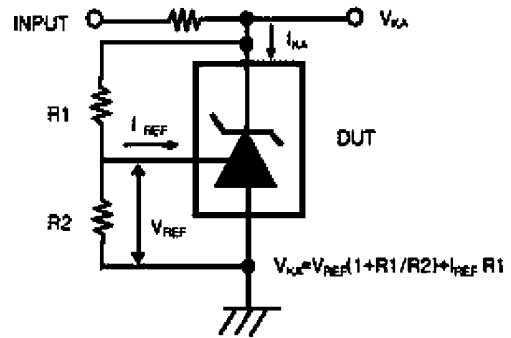
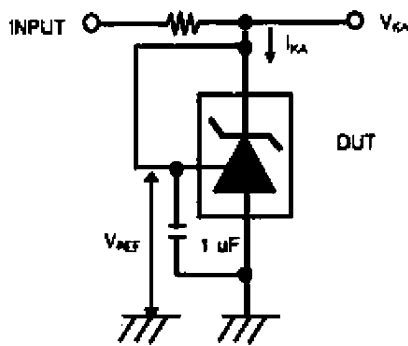
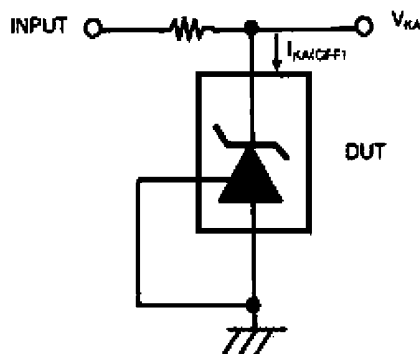
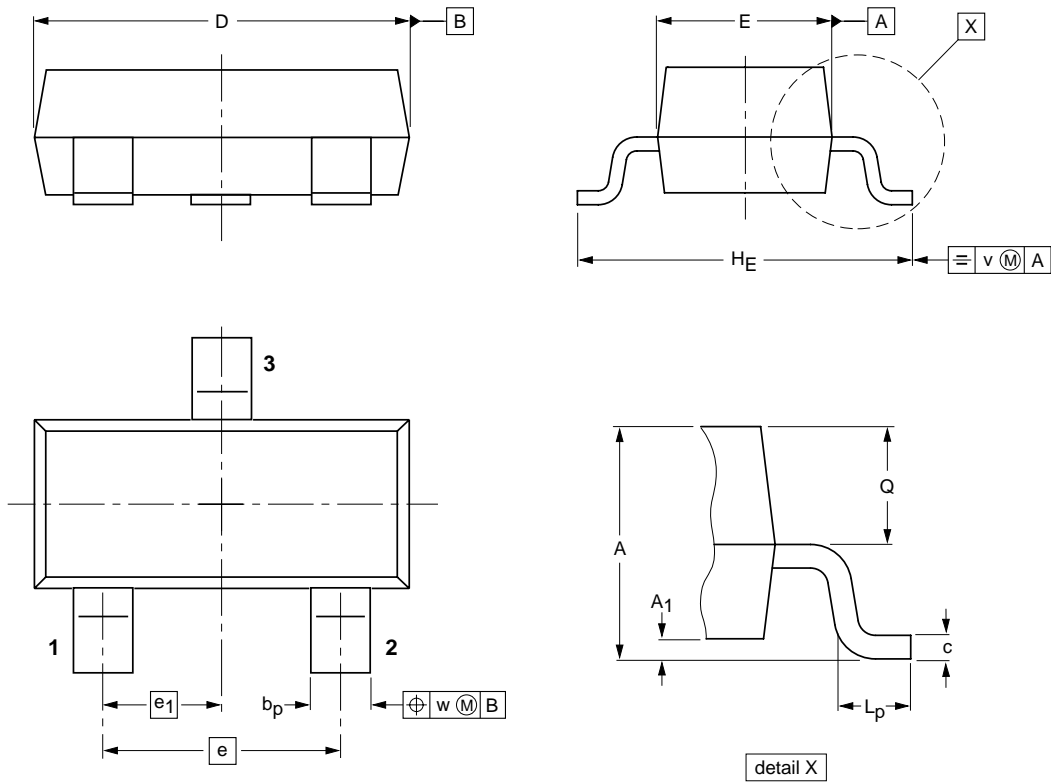


Fig. 3 Test Circuit for  $I_{KA}$  (off)



**Package Outline**

**SOT-23**



**DIMENSIONS (mm are the original dimensions)**

UNIT	A	A <sub>1</sub> max.	b <sub>p</sub>	c	D	E	e	e <sub>1</sub>	H <sub>E</sub>	L <sub>p</sub>	Q	v	w
mm	1.1 0.9	0.1	0.48 0.38	0.15 0.09	3.0 2.8	1.4 1.2	1.9	0.95	2.5 2.1	0.45 0.15	0.55 0.45	0.2	0.1

**Summary of Packing Options**

Package	Packing Description	Packing Quantity	Industry Standard
SOT-23	Tape/Reel, 7" reel	3000	EIA-481-1

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