

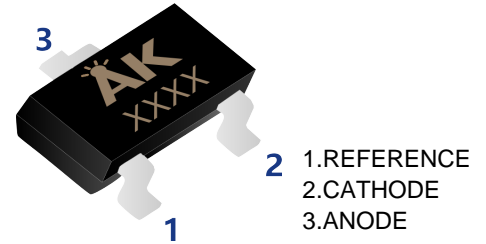
Adjustable Accurate Reference Source

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%



RoHS
COMPLIANT
HALOGEN
FREE



Simplified outline(SOT-23)

Marking

Marking	432
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Absolute Maximum Ratings Ta = 25°C

Parameter	Symbol	Rating	Unit
Cathode Voltage	V _{KA}	15	V
Continuous Cathode Current Range	I _{KA}	100	mA
Reference Input Current Range	I _{REF}	-0.05 to 3	mA
Total Power Dissipation	P _D	370	mW
Junction Temperature	T _J	-40 to 150	°C
Operating Temperature	T _{OPR}	0 to 70	°C
Storage Temperature	T _{STG}	-65 to 150	°C

Electrical Characteristics Ta = 25°C

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

CLASSIFICATION OF V_{ref}

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

■ Typical Characteristics

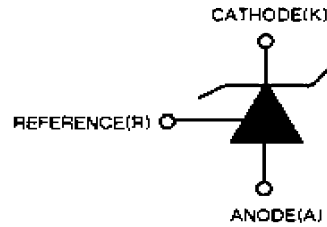
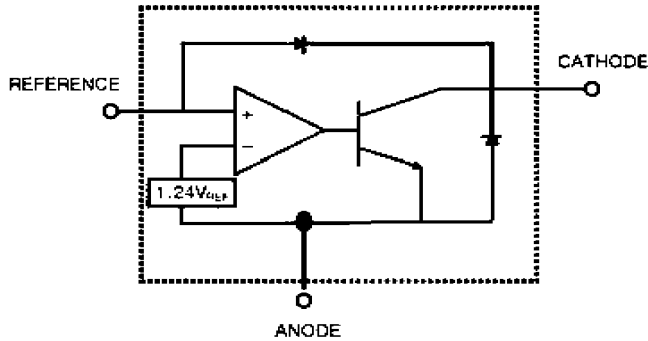


Fig. 1 Test Circuit for $V_{KA} = V_{REF}$

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

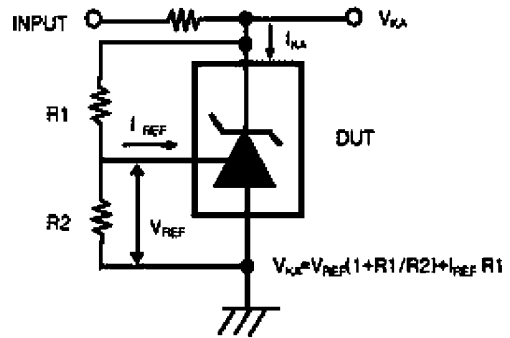
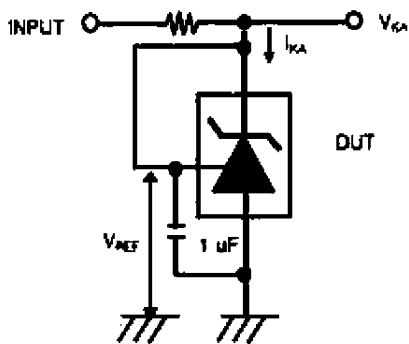
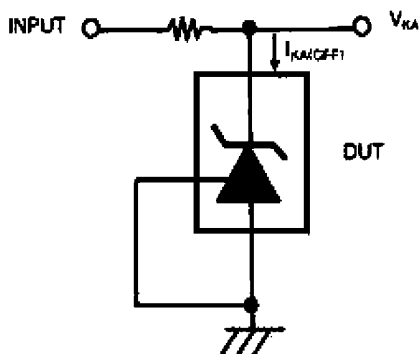
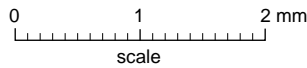
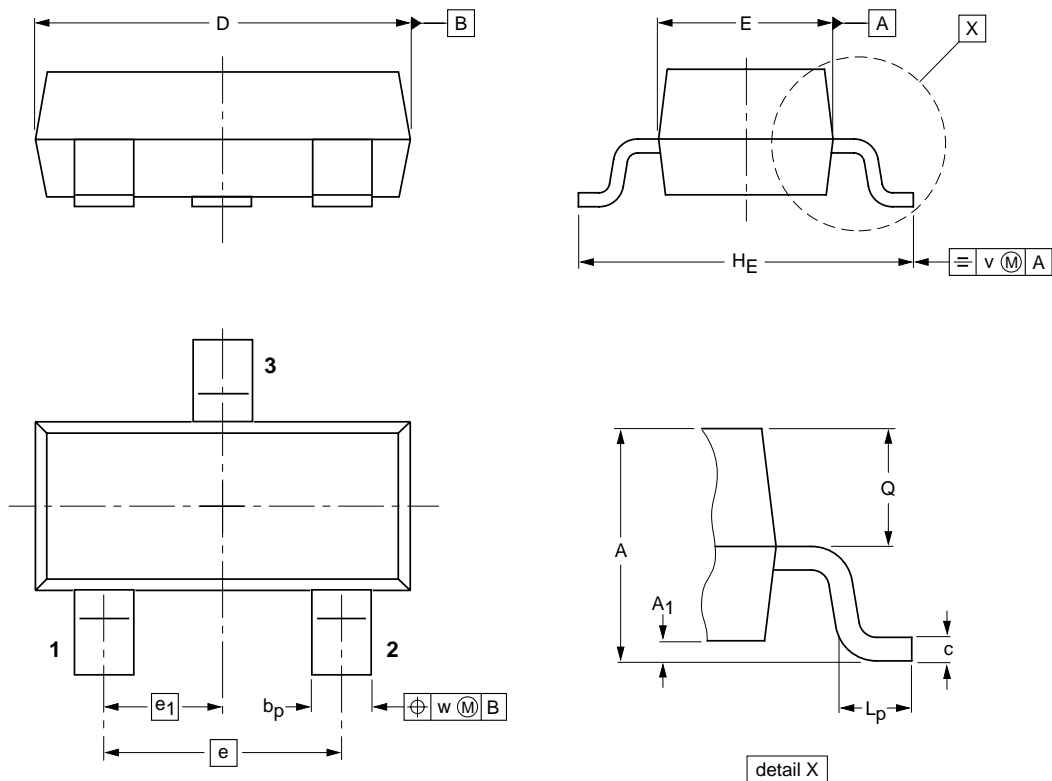


Fig. 3 Test Circuit for I_{KA} (off)



Package Outline
SOT-23

DIMENSIONS (mm are the original dimensions)

UNIT	A	A ₁ max.	b _p	c	D	E	e	e ₁	H _E	L _p	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