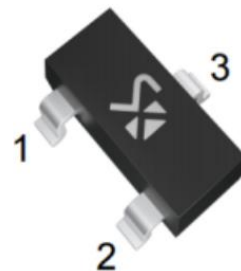


Programmable Precision Reference

Features

- Programmable output Voltage to 36V
- Low dynamic output impedance
- Sink current capability of 1 to 100mA
- Low output noise voltage
- Fast turn on response



1.Reference 2.Cathode 3.Anode

SOT-23 Plastic Package

Absolute Maximum Ratings ($T_A=25^\circ\text{C}$ unless otherwise noted)

Parameter	Symbol	Value	Unit
Cathode Voltage	V_{KA}	37	V
Cathode Current Range(Continuous)	I_{KA}	-100~+150	mA
Reference Input Current Range	I_{REF}	-0.05~+10	mA
Power Dissipation	P_D	350	mW
Operating Temperature	T_{OPR}	-20~+85	$^\circ\text{C}$
Junction Temperature	T_J	150	$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-65~+150	$^\circ\text{C}$

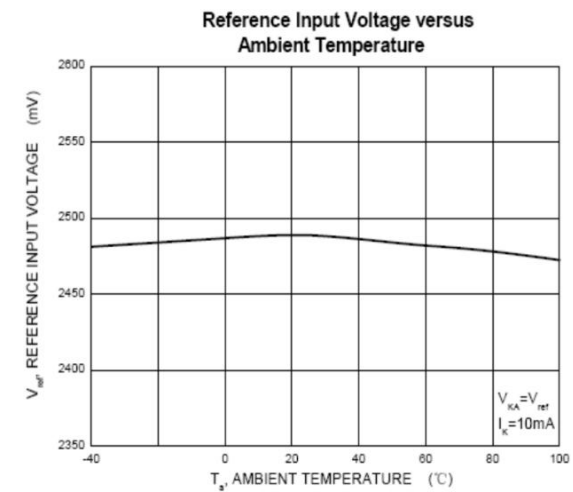
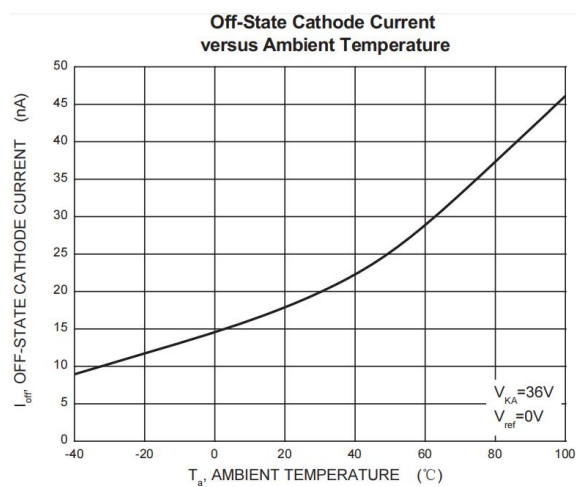
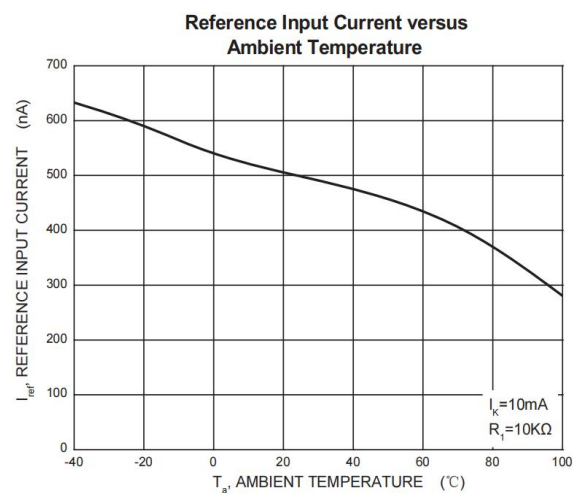
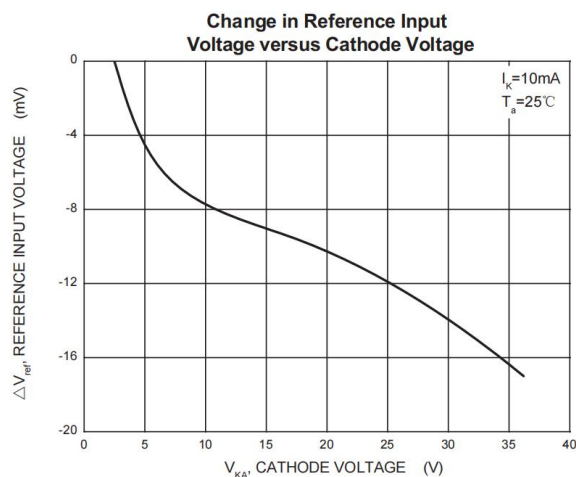
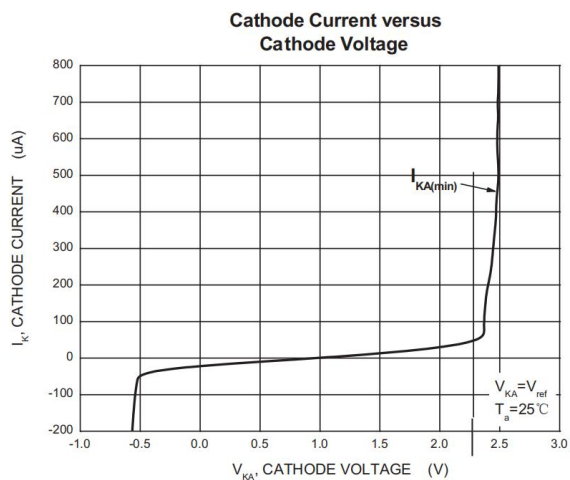
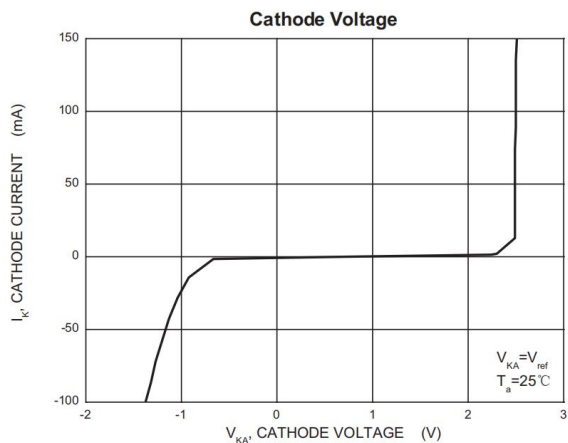
Recommended Operating Conditions

Parameter	Symbol	Min	Max	Unit
Cathode Voltage	V_{KA}	V_{REF}	36	V
Cathode Current	I_{KA}	1	100	mA

Characteristics at $T_A = 25^\circ\text{C}$

Parameter	Test Conditions	Symbol	Min	Typ	Max	Unit
Reference Input Voltage 0.5%	$V_{KA}=V_{REF}, I_{KA}=10\text{mA}$	V_{REF}	2.487	2.5	2.513	V
Deviation of Reference Input Voltage Over Temperature	$V_{KA}=V_{REF}, I_{KA}=10\text{mA}, -25^\circ\text{C} \leq T_a \leq +85^\circ\text{C}$	$\Delta V_{REF}/\Delta T$		4.5	17	mV
Ratio of Change in Reference Input Voltage to the Change in Cathode Voltage at $I_{KA} = 10\text{mA}$	$\Delta V_{KA}=10\text{V} \sim V_{REF}$	$\Delta V_{REF}/\Delta V_{KA}$		-1.0	-2.7	mV/V
	$\Delta V_{KA} = 36\text{V} \sim 10\text{V}$			-0.5	-2	
Reference Input Current	$I_{KA}=10\text{mA}, R1=10\text{K}\Omega, R2 = \infty$	I_{REF}		1.5	4	μA
Deviation of Reference Input Current Over Full Temperature	$I_{KA}=10\text{mA}, R1=10\text{K}\Omega, R2=\infty, -25^\circ\text{C} \leq T_a \leq +85^\circ\text{C}$	$\Delta I_{REF}/\Delta T$		0.4	1.2	μA
Minimum Cathode Current for Regulation	$V_{KA}=V_{REF}$	$I_{KA(\text{min})}$		0.45	1	mA
Off-Stage Cathode Current	$V_{KA}=36\text{V}, V_{REF}=0$	$I_{KA(\text{OFF})}$		0.05	1	μA
Dynamic Impedance	$V_{KA}=V_{REF}, I_{KA}=1 \sim 100\text{mA}, f \leq 1\text{KHz}$	Z_{KA}		0.15	0.5	Ω

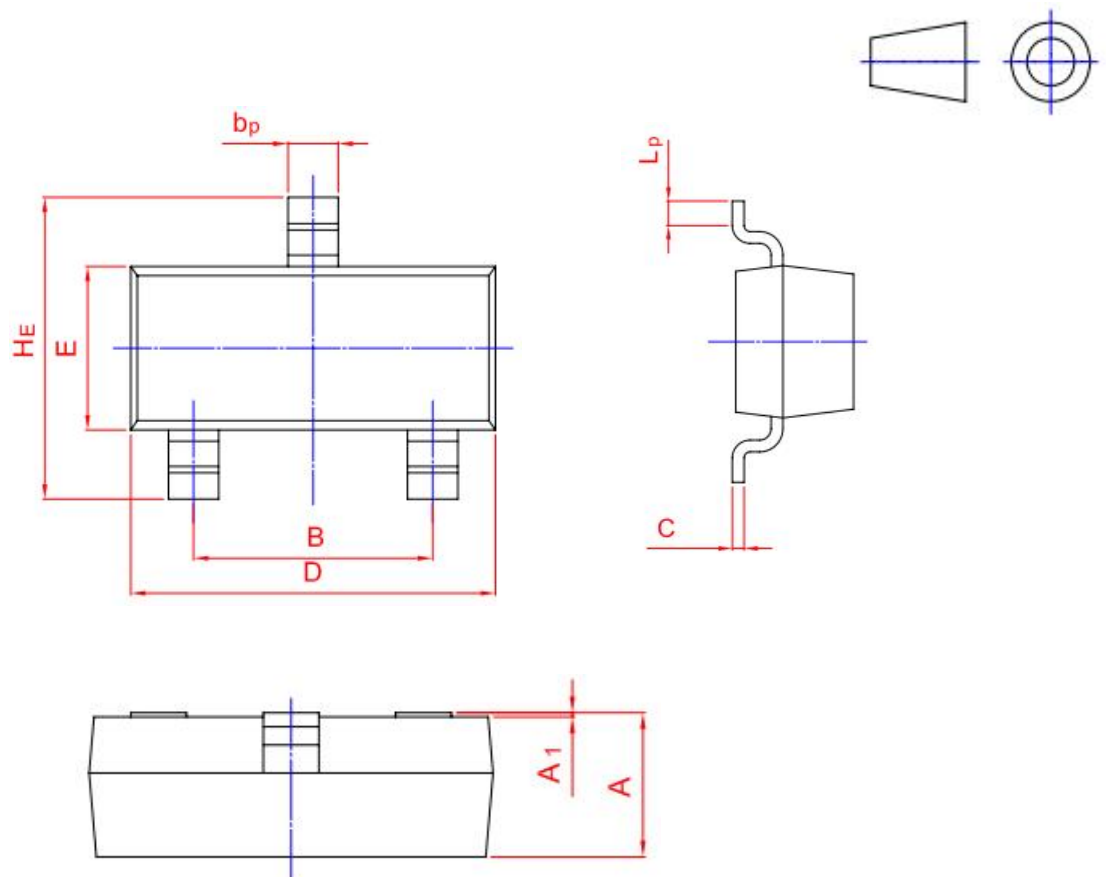
Typical Characteristics



Package Information

SOT-23

Dimensions in mm



UNIT	A	B	b_p	C	D	E	H_E	A_1	L_p
Mm	1.40	2.04	0.50	0.19	3.10	1.65	3.00	0.100	0.50
	0.95	1.78	0.35	0.08	2.70	1.20	2.20	0.013	0.20

Shikues Disclaimer

1.Accuracy of Information and Right to Modify

The information provided in this document is for reference only. Shikues reserves the right to make changes to this document and to the specifications of the products described herein at any time, without prior notice, for the purpose of improving reliability, function, design, or for any other reason. It is the customer's responsibility to obtain and verify the latest product information and specifications before making any final design, procurement, or usage decisions.

2.No Warranty

Shikues makes no express or implied warranties, representations, or guarantees regarding the suitability of its products for any particular purpose.

Shikues assumes no liability for any assistance provided or for the design of customer products. All products are supplied "as is."

3.Intended Use and Limitation of Liability

The products described in this document are intended for use in general-purpose electronic devices. They are neither designed nor tested nor authorized for use in transportation equipment or applications requiring high reliability. Unless expressly authorized in writing by Shikues, these products must not be used as critical components in life-support systems or any applications where failure could directly pose a risk to human life (including, but not limited to, medical devices, transportation systems, aerospace equipment, nuclear facilities, and safety-critical systems).

Shikues assumes no responsibility or liability for any consequences arising from the use of its products in unauthorized or unintended applications.

Neither Shikues nor its representatives shall be held liable for any resulting damages.

4.Intellectual Property

This document does not grant any express or implied license—whether by estoppel, implication, or otherwise—to use any intellectual property rights of Shikues.