

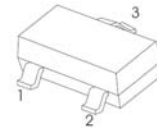
## Features

- Programmable output voltage to 36V
- Low dynamic output impedance 0.2ohm
- Sink current capability of 1.0 to 100mA
- Typical for operation over full rated operating temperature range



### SOT-23

1. REFERENCE  
2. CATHODE  
3. ANODE



## Absolute Maximum Ratings (Tamb=25°C)

Parameter	Symbol	Rating	Unit
Cathode Voltage	Vka	37	V
Cathode Current Range	Ika	-100 +150	mA
Reference Input Current Rang	Iref	-0.05 +10	mA
Operating Junction Temperature	Tj	150	°C
Operating Ambient Temperature	Topr	0 +70	°C
Storage Temperature	Tstg	-65~150	°C

## RECOMMENDED OPERATING CONDITIONS

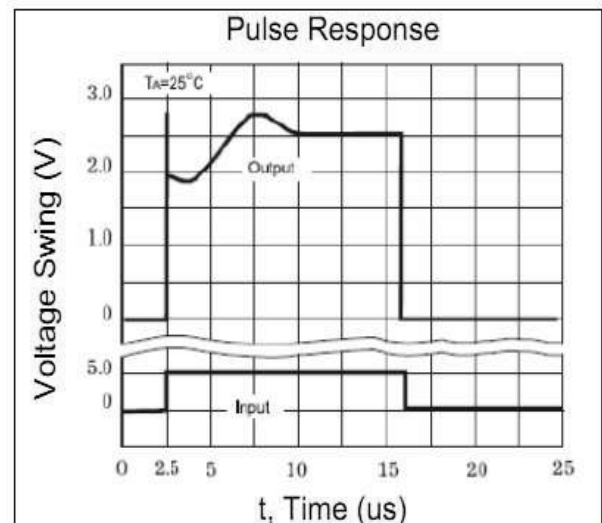
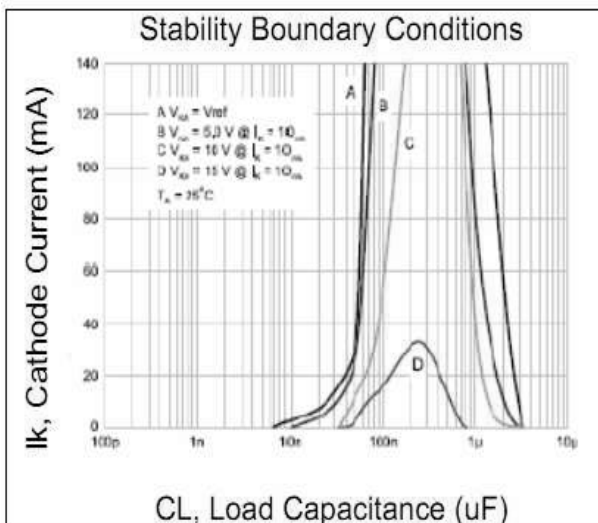
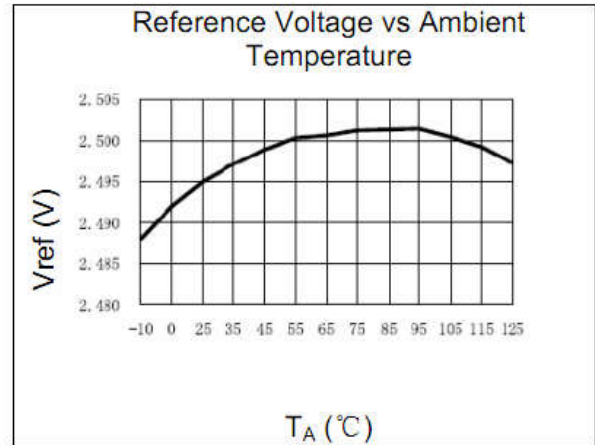
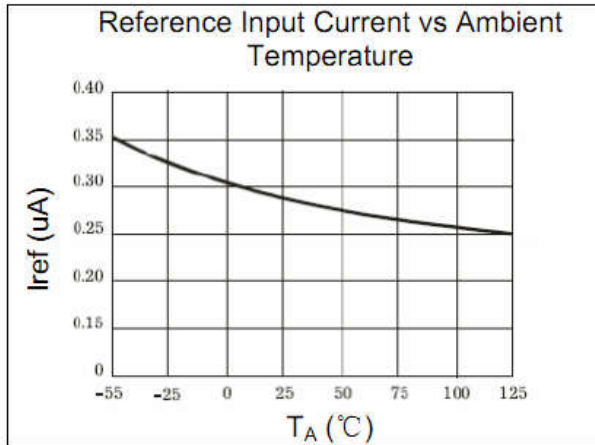
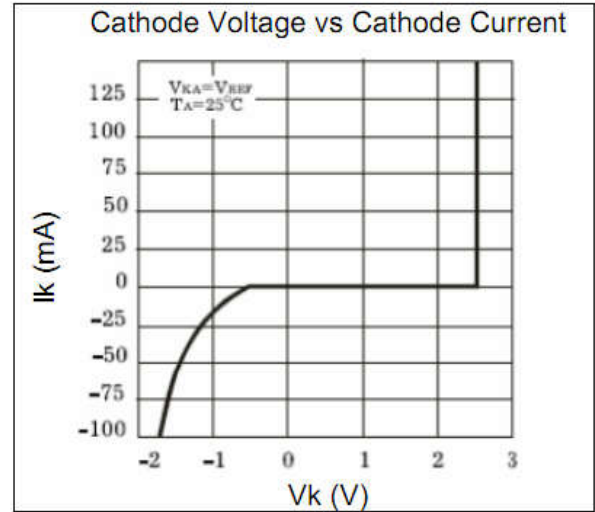
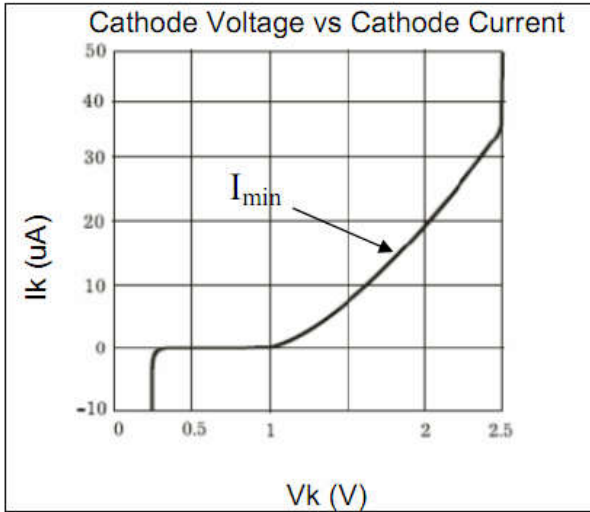
Parameter	Symbol	Min	Typ	Max	Unit
Cathode Voltage	Vka	Vref		36	V
Cathode Current	Ika	1		100	mA

Electrical Characteristic( $T_{amb}=25^{\circ}C$ )

Parameter	Symbol	Test Condition	Min	Max	Unit
Reference Input Voltage	Vref	Vka=Vref,Ika=10mA	2.44	2.495	2.55 V
Deviation of reference input Voltage Over temperature	$\Delta V_{ref}/\Delta T$	Vka=Vref,Ika=10mA; $0^{\circ}C \leq T_a \leq 70^{\circ}C$		4.5	17 mV
Ratio of change in reference input voltage to the change in cathode voltage	$\Delta V_{ref}/\Delta V_{ka}$	Ika=10mA, $\Delta V_{ka}=10V \sim V_{ref}$		-1	-2.7 mV/V
Ratio of change in reference input voltage to the change in cathode voltage	$\Delta V_{ref}/\Delta V_{ka}$	Ika=10mA, $\Delta V_{ka}=36V \sim 10V$		-0.5	-2 mV/V
Reference Input Current	Iref	Ika=10V,R1=10Kohm,R2= $\infty$		1.5	4 uA
Deviation of reference input Current Over Full Temperature Range	$\Delta I_{ref}/\Delta T$	Ika=10V,R1=10Kohm,R2= $\infty$ , Ta=full tempertaure		0.4	1.2 uA
Minimum Cathode Current for Regulation	Ika(min)	Vka=Vref		0.45	1 mA
Off-State Cathode Current	Ika(off)	Vka=36V,Vref=0		0.05	1.0 uA
Dynamic Impedance	Zka	Vka=Vref,Ika=1 to 100mA,f=1.0kHz		0.15	0.5 ohm

Rank	0.5%
Range	2.482-2.508

RATING AND CHARACTERISTIC CURVES



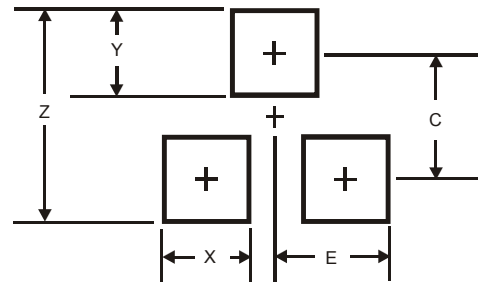
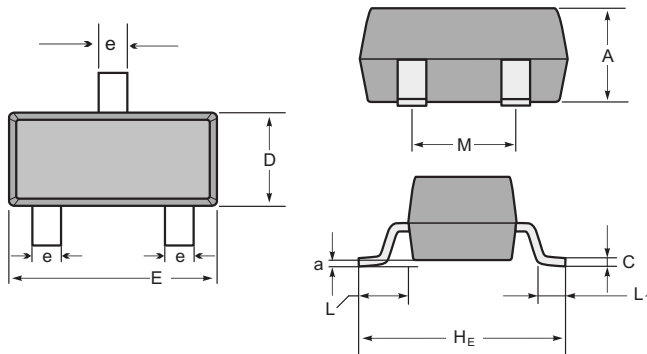
Soldering parameters

Reflow Condition		Pb-Free assembly (see as below)
Pre Heat	-Temperature Min ( $T_{s(min)}$ )	+150°C
	-Temperature Max( $T_{s(max)}$ )	+200°C
	-Time (Min to Max) (ts)	60-180 secs.
Average ramp up rate (Liquid us Temp ( $T_L$ ) to peak)		3°C/sec. Max
$T_{s(max)}$ to $T_L$ - Ramp-up Rate		3°C/sec. Max
Reflow	-Temperature( $T_L$ )(Liquid us)	+217°C
	-Temperature( $t_L$ )	60-150 secs.
Peak Temp ( $T_P$ )		+260(+0/-5)°C
Time within 5°C of actual Peak Temp ( $t_p$ )		30 secs. Max
Ramp-down Rate		6°C/sec. Max
Time 25°C to Peak Temp ( $T_P$ )		8 min. Max
Do not exceed		+260°C



Package Dimensions & Suggested Pad Layout

SOT23

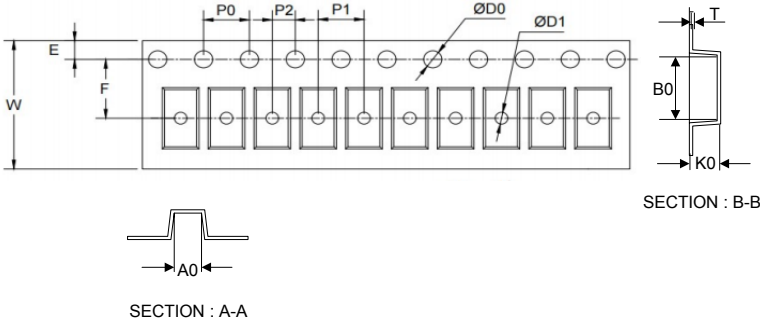
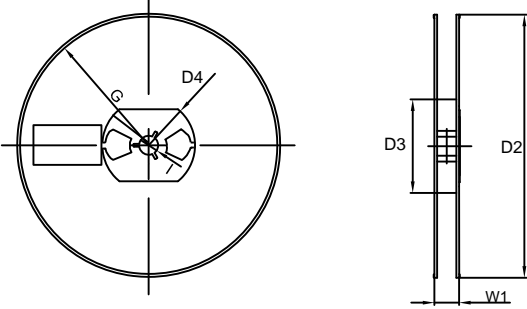


SOT-23 mechanical data

UNIT		A	C	D	E	HE	e	M	L	L <sub>1</sub>	a
mm	max	1.1	0.15	1.4	3.0	2.6	0.5	1.95	0.55 (ref)	0.36 (ref)	0.0
	min	0.9	0.08	1.2	2.8	2.2	0.3	1.7			0.15
mil	max	43	6	55	118	102	20	77	22 (ref)	14 (ref)	0.0
	min	35	3	47	110	87	12	67			6

Dimensions	SOT23
Z	2.9
X	0.8
Y	0.9
C	2.0
E	1.35

Tape & reel specification

Tape	Symbol	Dimension (mm)
	P0	4.00±0.10
	P1	4.00±0.10
	P2	2.00±0.10
	D0	1.55±0.10
	D1	1.05±0.10
	E	1.55±0.10
	F	3.60±0.10
	W	8.00±0.10
	A0	3.80±0.20
	B0	3.25±0.20
	K0	1.45±0.10
	T	0.25±0.05
	7" Reel	D2
	D3	55Min.
	D4	R24.0±3.0
	G	R82.0±3.0
	I	13.0±2.0
	W1	11.0±3.0
Quantity: 3000PCS		