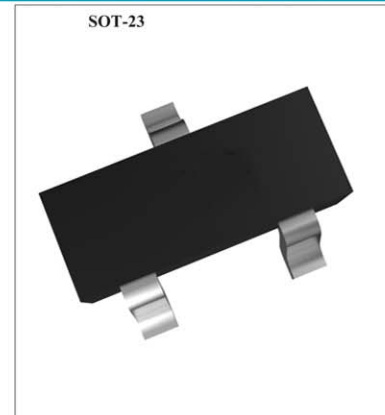
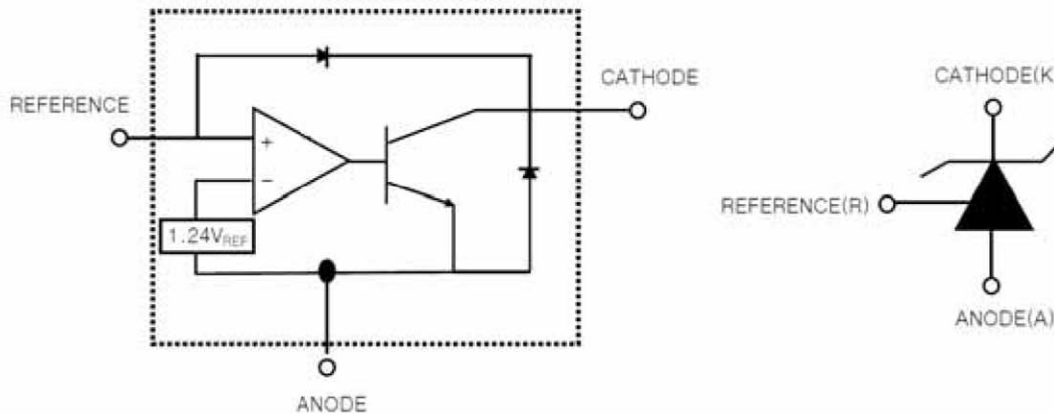


## ● Features

- 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%
- Reference Input Voltage:  $1.24 \pm 0.5\%$



## Function Block Diagram



## ● Absolute Maximum Ratings $T_a = 25^\circ\text{C}$

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  $T_a = 25^\circ\text{C}$

Parameter	Symbol	Testconditions	Min	Typ	Max	Unit
Reference Input Voltage	$V_{ref}$	$V_{KA}=V_{REF}, I_{KA}=10\text{mA}$	1.233	1.24	1.247	V
Deviation of reference Input Voltage Over Full Temperature Range	$\Delta V_{ref}/\Delta T$	$V_{KA}=V_{REF}, I_{KA}=10\text{mA}$ $T_A=\text{Full Range}$		10	25	mV
Ratio Of Change in Reference Input Voltage to the change in Cathode Voltage	$\Delta V_{ref}/\Delta V_{KA}$	$V_{KA}=1.25\text{V to } 14.5\text{V}$		1.0	2.7	mV/V
Reference input Current	$I_{ref}$	$R_1=10\text{K}\Omega, R_2=\infty$		0.5	1	$\mu\text{A}$
Deviation Of Reference Input Current Over Full Temperature Range	$\Delta I_{ref}/\Delta T$	$R_1=10\text{K}\Omega, R_2=\infty$ $T_A=\text{full Temperature}$		0.05	0.3	$\mu\text{A}$
Minimum cathode current for regulation	$I_{KA(\text{min})}$	$V_{KA}=V_{REF}$		60	80	$\mu\text{A}$
Off-state cathode Current	$I_{KA(\text{OFF})}$	$V_{KA}=15\text{V}, V_{REF}=0$		0.04	0.5	$\mu\text{A}$
Dynamic impedance	$Z_{KA}$	$V_{KA}=V_{REF}, I_{KA}=0.1 \text{ to } 20\text{mA}, f \leq 1.0\text{KHz}$		0.2	0.4	$\Omega$

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

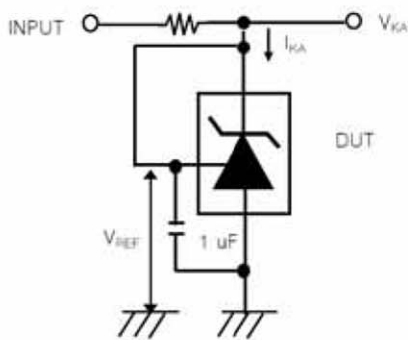


Fig. 2 Test Circuit for  $V_{KA} \geq V_{REF}$

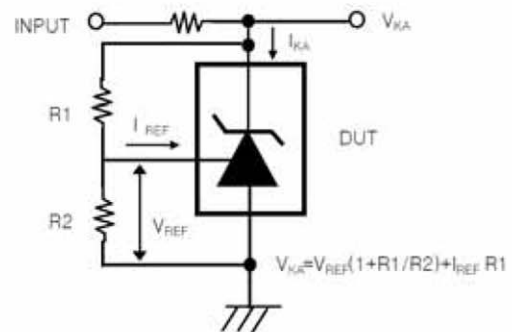


Fig. 3 Test Circuit for  $I_{KA}(\text{off})$

