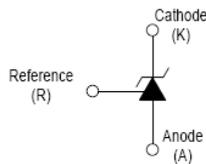
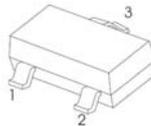


FEATURES

- Low dynamic output impedance
- The effective temperature compensation in the working range of full temperature
- Low output noise voltage
- Fast on -state response
- Sink current capability of 0.1mA to100mA

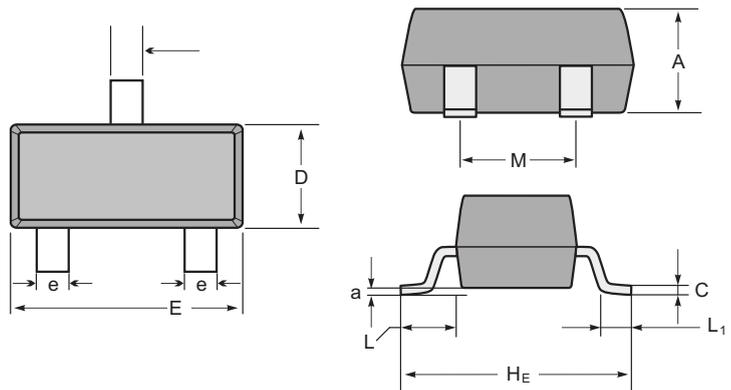
SOT-23

- 1.REFERENCE
- 2.CATHODE
3. ANODE



Marking

Type number	Marking code
TL432	432



SOT-23 mechanical data

UNIT		A	C	D	E	H _E	e	M	L	L ₁	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

ABSOLUTE MAXIMUM RATINGS (Operating temperature range applies unless otherwise specified)

Parameter	Symbol	Value	Units
Cathode Voltage	V _{KA}	18	V
Cathode Current Range (continuous)	I _{KA}	100	mA
Reference Input Current Range	I _{ref}	6	μA
Power Dissipation	P _D	350	mW
Thermal Resistance from Junction to Ambient	R _{θJA}	357	°C/W
Operating Temperature	T _{opr}	0~+70	°C
Junction Temperature	T _J	150	°C
Storage Temperature	T _{stg}	-65~+150	°C

TL432

ELECTRICAL CHARACTERISTICS (T_a=25°C unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Reference input voltage (Fig 1)	V _{ref}	V _{KA} =V _{REF} , I _{KA} =10mA	1.2214		1.2586	V
Deviation of reference voltage over full temperature range (Fig 1)	ΔV _{ref(DEV)}	V _{KA} =V _{REF} , I _{KA} =10mA 0°C≤T _a ≤70°C			16	mV
Ratio of change in reference input voltage to the change in cathode voltage (Fig 2)	ΔV _{ref} /ΔV _{KA}	I _{KA} =10mA, ΔV _{KA} =1.25V~15V			2.4	mV/V
Deviation of reference input current over full temperature range (Fig 2)	ΔI _{ref} /ΔT	I _{KA} =10mA, R ₁ =10kΩ, R ₂ =∞, 0°C≤T _a ≤70°C			0.6	μA
Minimum cathode current for regulation (Fig 1)	I _{KA(min)}	V _{KA} =V _{REF}			0.1	mA
Off-state cathode current(Fig 3)	I _{off}	V _{KA} =15V, V _{REF} =0			0.5	μA
Dynamic impedance	Z _{KA}	V _{KA} =V _{REF} , I _{KA} =0.1~20mA, f≤1.0kHz			0.5	Ω

CLASSIFICATION OF V_{ref}

Rank	1%	1.5%
Range	1.2276~1.2524	1.2214~1.2586

Figure 1. Test Circuit for V_{KA} = V_{ref}

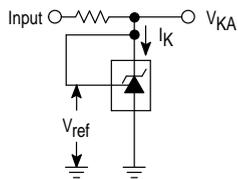


Figure 2. Test Circuit for V_{KA} > V_{ref}

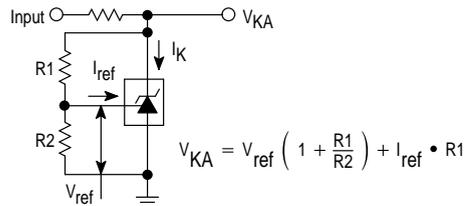
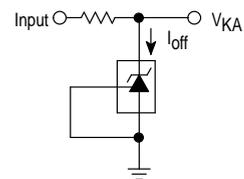
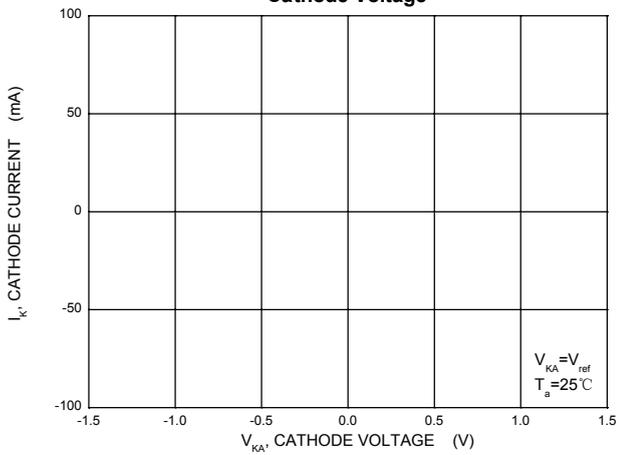


Figure 3. Test Circuit for I_{off}

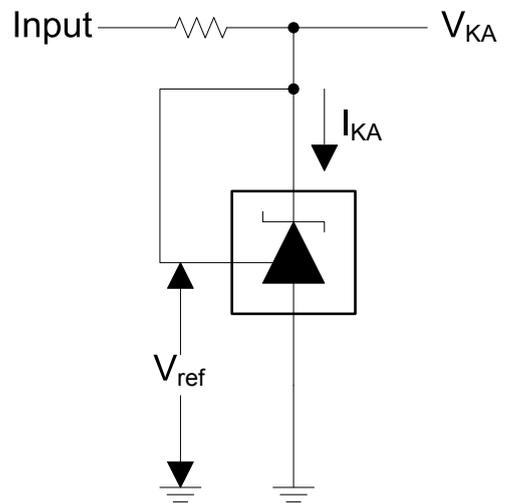
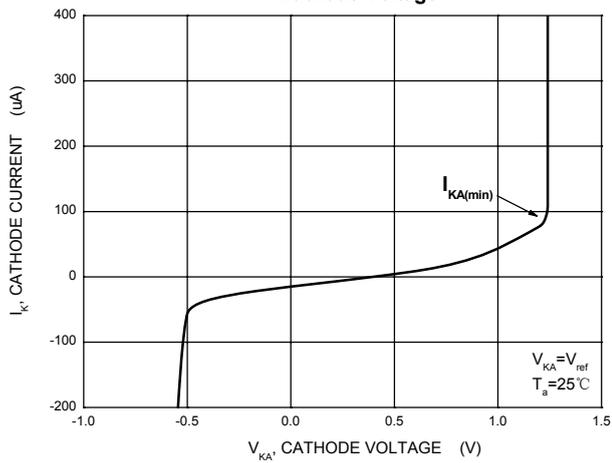


TL432 LINEAR INTEGRATED CIRCUIT

Cathode Current versus Cathode Voltage

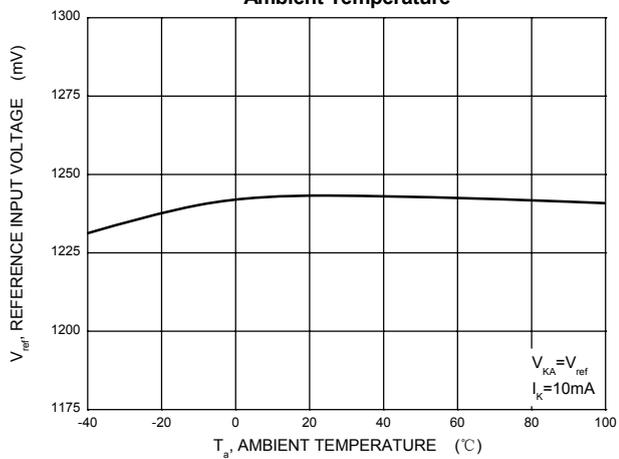


Cathode Current versus Cathode Voltage



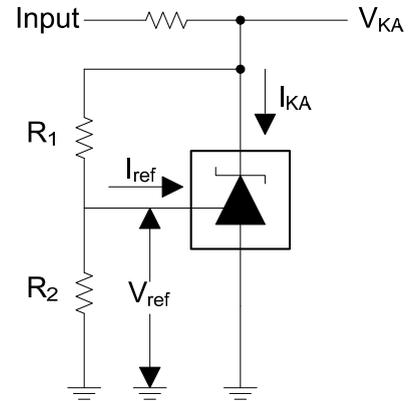
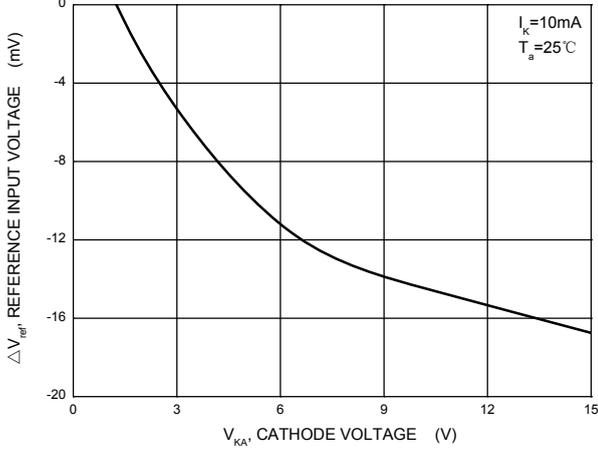
Test Circuit for $V_{KA} = V_{ref}$

Reference Input Voltage versus Ambient Temperature



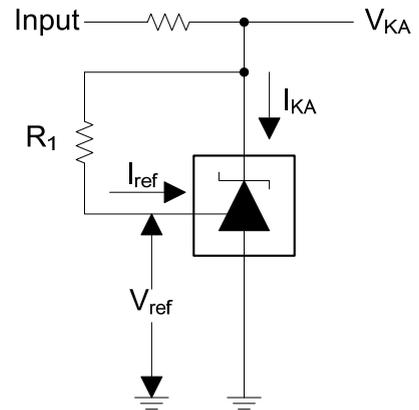
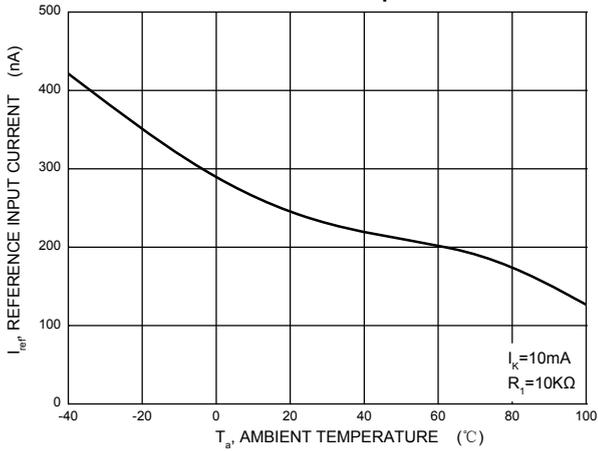
TL432 LINEAR INTEGRATED CIRCUIT

Change in Reference Input Voltage versus Cathode Voltage



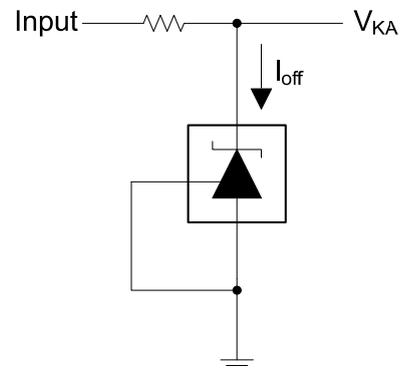
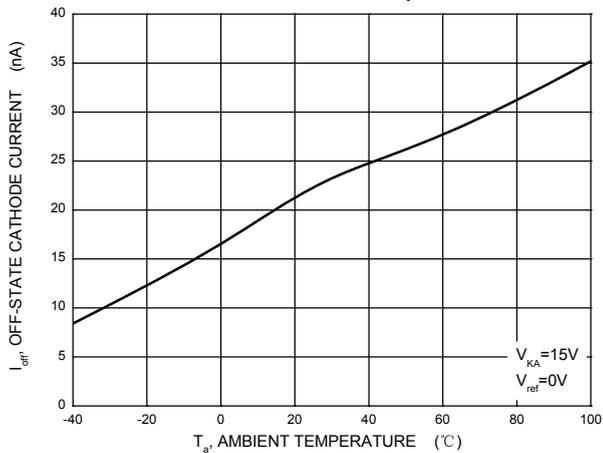
Test Circuit for $V_{KA} = V_{ref}(1 + R1/R2) + R1 * I_{ref}$

Reference Input Current versus Ambient Temperature



Test Circuit for I_{ref}

Off-State Cathode Current versus Ambient Temperature



Test Circuit for I_{off}

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