

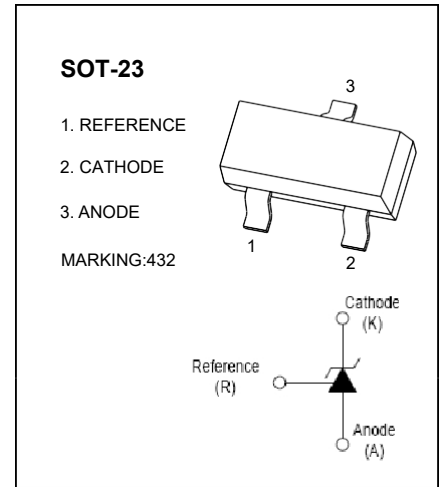
MMTL432 Adjustable Reference Source

DEVICE DESCRIPTION

The TL432 is a three-terminal Shunt Voltage Reference providing a highly accurate 1.24V. The TL432 thermal stability and wide operating current, makes it suitable for all variety of applications that are looking for a low cost solution with high performance.

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 to 100mA



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	$R_{\theta JA}$	357	$^{\circ}C/W$
Operating Temperature	T_{opr}	0~+70	$^{\circ}C$
Junction Temperature	T_J	150	$^{\circ}C$
Storage Temperature	T_{stg}	-65~+150	$^{\circ}C$

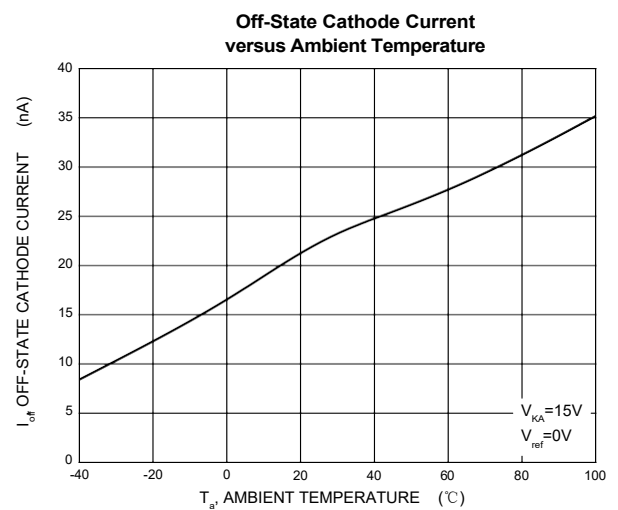
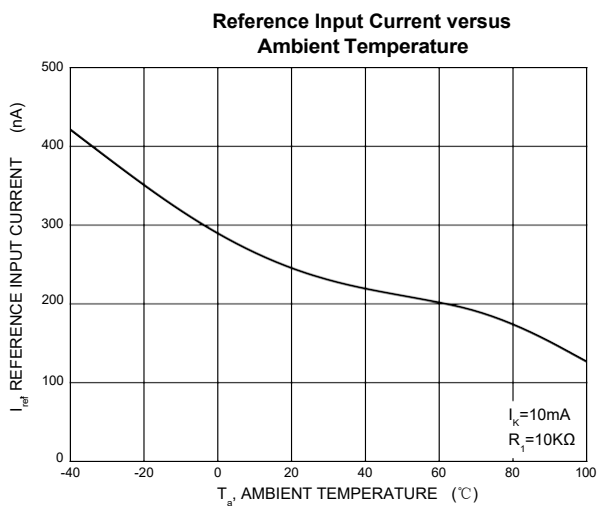
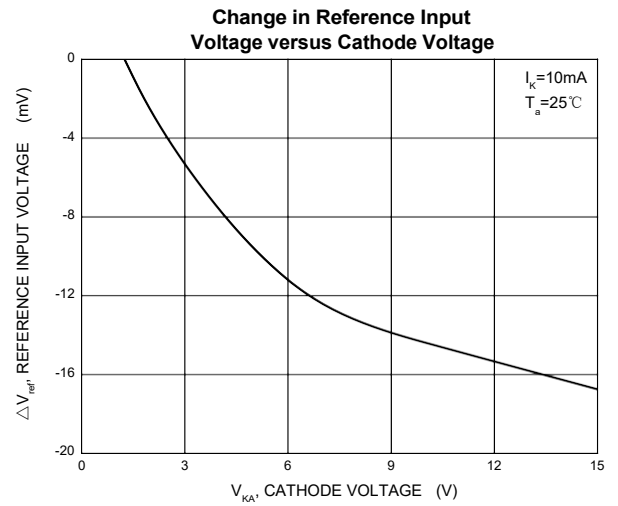
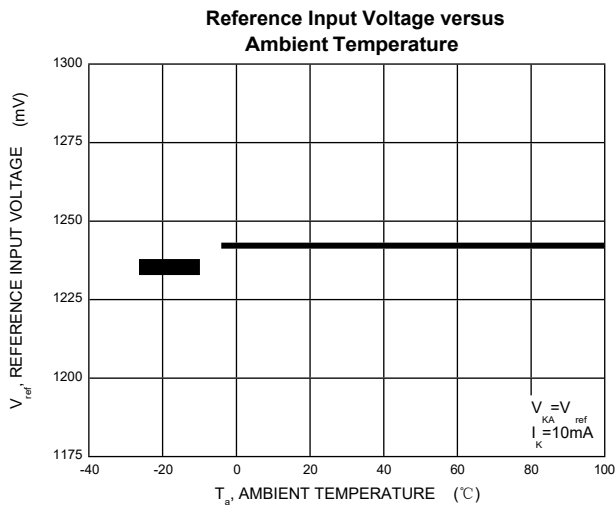
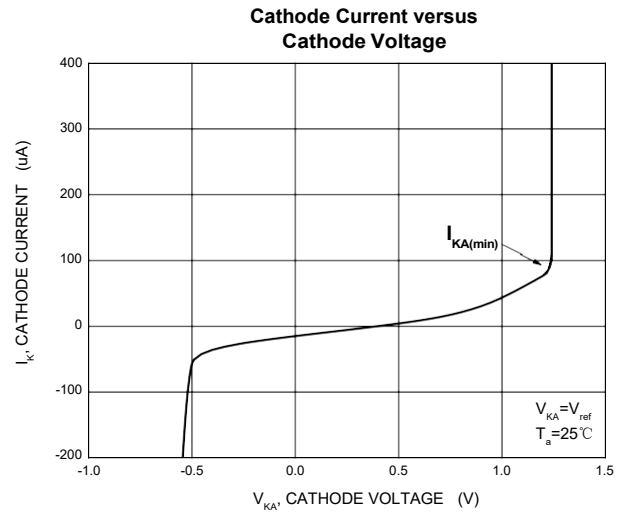
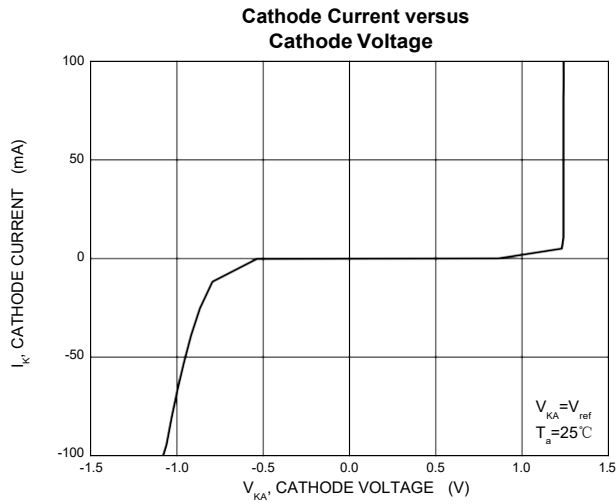
ELECTRICAL CHARACTERISTICS ($T_a=25^{\circ}C$ unless otherwise specified)

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)	$\Delta V_{ref(DEV)}$	$V_{KA}=V_{REF}, I_{KA}=10mA$ $0^{\circ}C \leq T_a \leq 70^{\circ}C$			16	mV
Ratio of change in reference input voltage to the change in cathode voltage (Fig 2)	$\Delta V_{ref} / \Delta V_{KA}$	$I_{KA}=10mA,$ $\Delta V_{KA}=1.25V \sim 15V$			2.4	mV/V
Deviation of reference input current over full temperature range (Fig 2)	$\Delta I_{ref} / \Delta T$	$I_{KA}=10mA, R_1=10k\Omega,$ $R_2=\infty, 0^{\circ}C \leq T_a \leq 70^{\circ}C$			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}	$V_{KA}=V_{REF}, I_{KA}=0.1 \sim 20mA,$ $f \leq 1.0kHz$			0.5	Ω

CLASSIFICATION OF V_{ref}

Rank	0.5%	1%	1.5%
Range	1.2338~1.2462	1.2276~1.2524	1.2214~1.2586

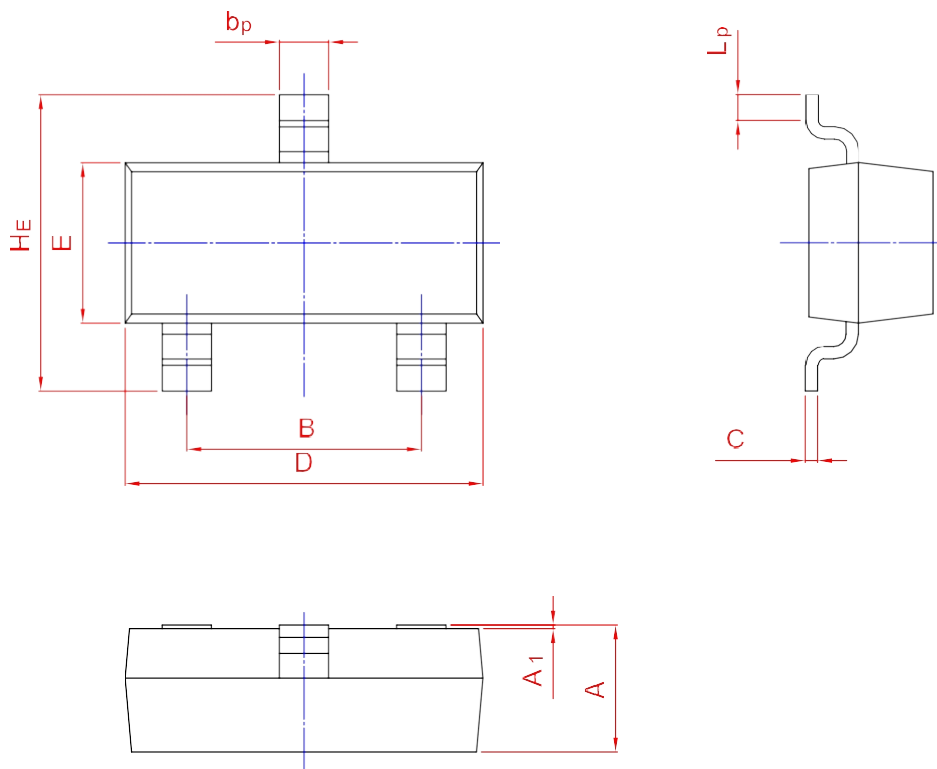
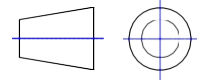
Typical Characteristics



PACKAGE OUTLINE

Plastic surface mounted package; 3 leads

SOT-23



UNIT	A	B	bp	C	D	E	HE	A1	Lp
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

DISCLAIMER

- Before you use our Products, you are requested to carefully read this document and fully understand its contents. BLUECOLOUR shall not be in any way responsible or liable for failure, malfunction or accident arising from the use of any BLUECOLOUR's Products against warning, caution or note contained in this document.
- All information contained in this document is current as of the issuing date and subject to change without any prior notice. Before purchasing or using BLUECOLOUR's Products, please confirm the latest information with a BLUECOLOUR sales representative.