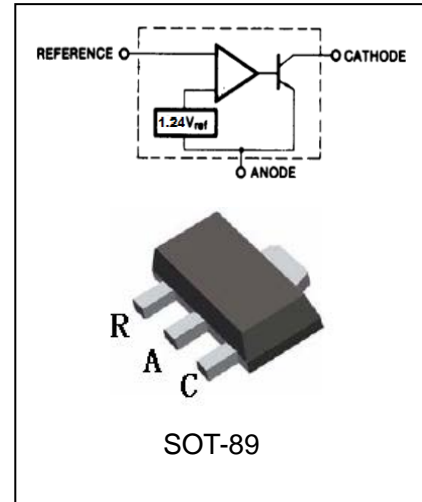




FEATURES

- Low dynamic output impedance 0.20 typical
- Sink current capability of 1.0 to 100mA
- Equivalent full-range temperature coefficient of 50ppm/°C typical
- Temperature compensated for operation over full rated Operating temperature range
- Low output noise voltage
- Fast turn-on response



ORDERING INFORMATION

| Type No. | Marking | Package Code |
|----------|---------|--------------|
| LGE432□ | 432 | SOT-89 |

□: none is for Lead Free package;
 “G” is for Halogen Free package.

MAXIMUM RATING @ Ta=25°C unless otherwise specified

| Parameter | symbol | limits | unit |
|--|-----------------|-------------|------|
| Cathode Voltage | V_{KA} | 15 | V |
| Cathode current Range(Continuous) | I_{KA} | 100 | mA |
| Reference Input Current Range | I_{REF} | -0.05 to +3 | mA |
| Power dissipation | P_D | 330 | mW |
| Thermal Resistance Junction to Ambient | $R_{\theta JA}$ | 350 | °C/W |
| Thermal Resistance, Junction to Case | $R_{\theta JC}$ | 155 | °C/W |
| Operating Temperature Range | T_{OPR} | 0 to 70 | °C |
| Operating Junction Range | T_J | -40 to +150 | °C |
| Storage temperature Range | T_{STG} | -65 to +150 | °C |



Recommended Operating Conditions

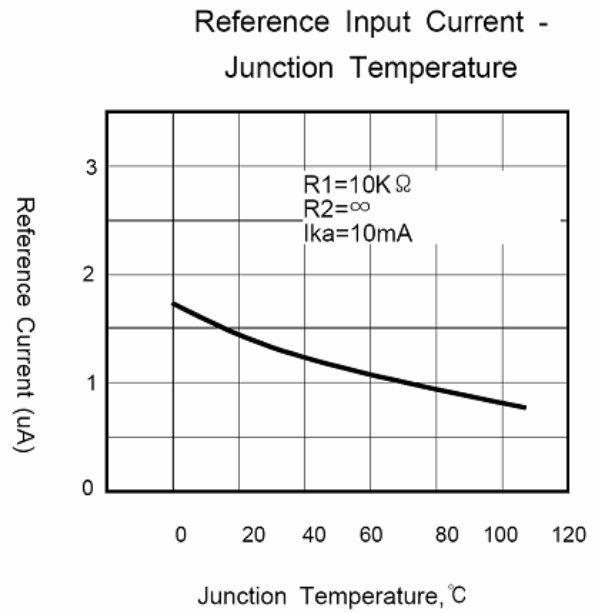
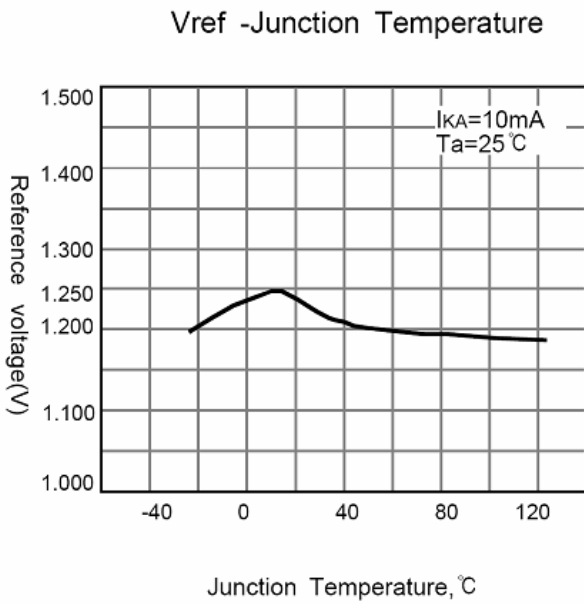
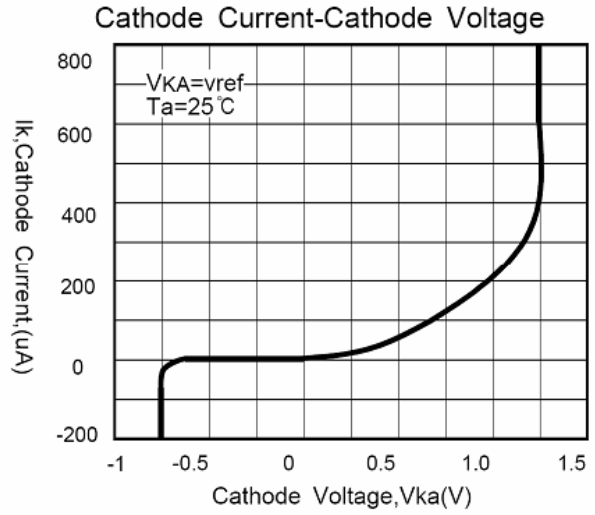
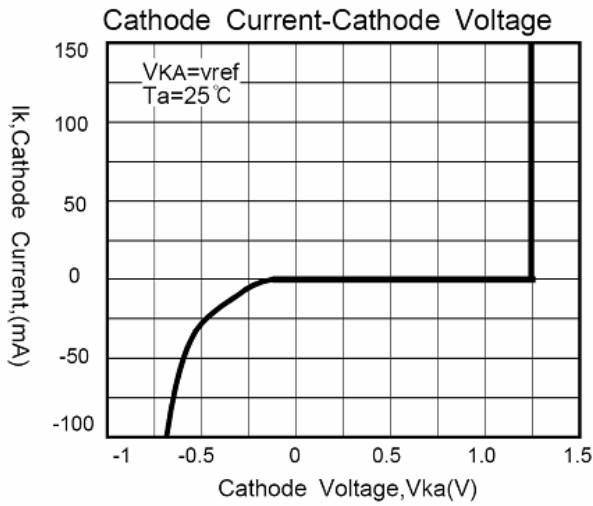
| Parameter | symbol | Min | Typ | Max | Unit |
|-----------------|----------|-----------|-----|-----|------|
| Cathode Voltage | V_{KA} | V_{REF} | - | 15 | V |
| Cathode Current | I_{KA} | 1.0 | - | 100 | mA |

ELECTRICAL CHARACTERISTICS @ $T_a=25^{\circ}\text{C}$ unless otherwise specified

| Parameter | symbol | conditions | Min. | Typ. | Max. | unit | |
|---|--------------------------------|---|------|-------|-------|---------------|-------|
| Refer Input Voltage | V_{REF} | $V_{KA}=V_{REF}, I_{KA}=10\text{mA}$ | 0.5% | 1.233 | 1.247 | V | |
| | | | 1% | 1.228 | | | 1.24 |
| | | | 2% | 1.215 | | | 1.252 |
| 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 | |
| Reverse Input current | I_{REF} | $R_1=10\text{K}\Omega, R_2=\infty$ | | 0.5 | 1 | μA | |
| Deviation of Reference Input Current Over Full Temperature Range | $\Delta I_{REF}/\Delta T$ | $R_1=10\text{K}\Omega, R_2=\infty$ $T_A=\text{Full Range}$ | | 0.05 | 0.3 | μA | |
| Minimum Cathode Current for Regulation | $I_{KA(\text{MIN})}$ | $V_{KA}=V_{REF}$ | | 60 | 80 | μA | |
| Off-Stage Cathode Current | $I_{KA(\text{OFF})}$ | $V_{KA}=15\text{V}, V_{REF}=0$ | | 0.04 | 0.5 | μA | |
| Dynamic Impedance(Note2) | Z_{ZA} | $V_{KA}=V_{REF}, I_K=0.1\text{ mA} \sim 20\text{ mA}$ $f \leq 1.0\text{kHz}$ | | 0.2 | 0.4 | Ω | |



TYPICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

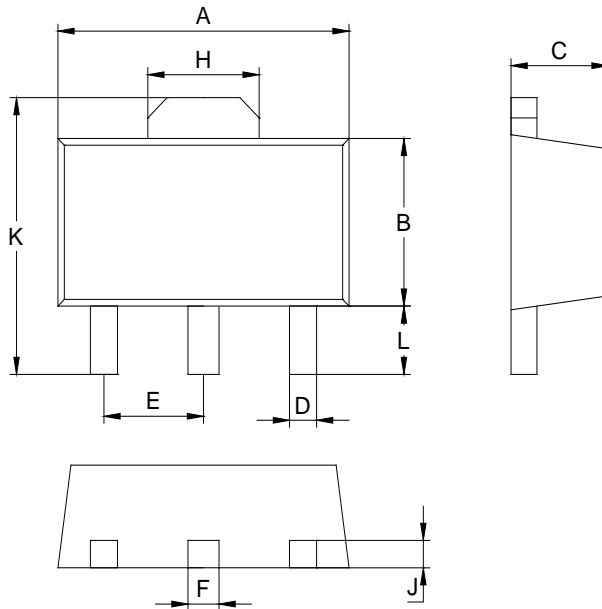




PACKAGE OUTLINE

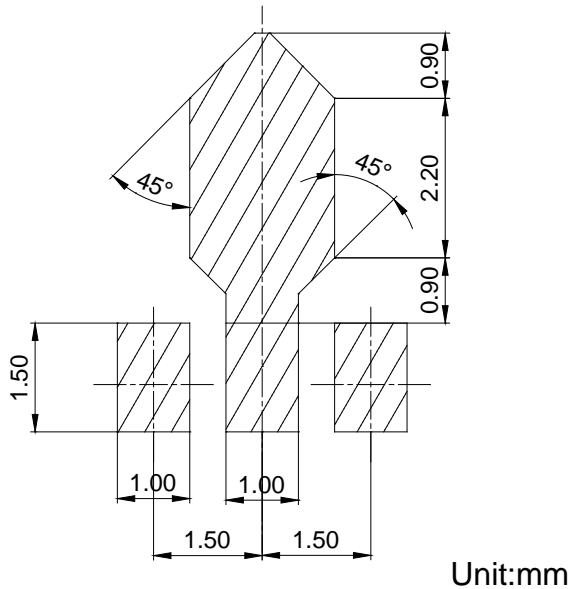
Plastic surface mounted package

SOT-89



| SOT-89 | | |
|----------------------|------|------|
| Dim | Min | Max |
| A | 4.30 | 4.70 |
| B | 2.25 | 2.65 |
| C | 1.30 | 1.70 |
| D | 0.30 | 0.50 |
| E | 1.40 | 1.60 |
| F | 0.38 | 0.58 |
| H | 1.60 | 1.80 |
| J | 0.30 | 0.50 |
| L | 0.90 | 1.10 |
| K | 3.95 | 4.35 |
| All Dimensions in mm | | |

SOLDERING FOOTPRINT



PACKAGE INFORMATION

| Device | Package | Shipping |
|--------|---------|----------------|
| LGE432 | SOT-89 | 1000/Tape&Reel |