# 45V 150mA Low Power LDO

## Features

- Low Power Consumption:2μA
- Low Voltage Drops: 600mV @100mA
- Low Temperature Coefficient
- Fixed Output Voltages: 1.8V, 2.5V, 2.7V, 3.0V 3.3V, 3.6V, 4.0V, 4.4V, 5.0V
- Thermal Shutdown Protection
- High Ripple Rejection: 65dB @100Hz
- High Input Voltage (Up to 45V)
- Output current @$V_{IN}$-$V_{OUT}$=2V (Up to 150mA)
- Output Voltage Accuracy: ±2% at 25℃
- TO92/SOT89-3A/SOT89-3B/SOT23-3 /SON763 /SOT23-5 Package

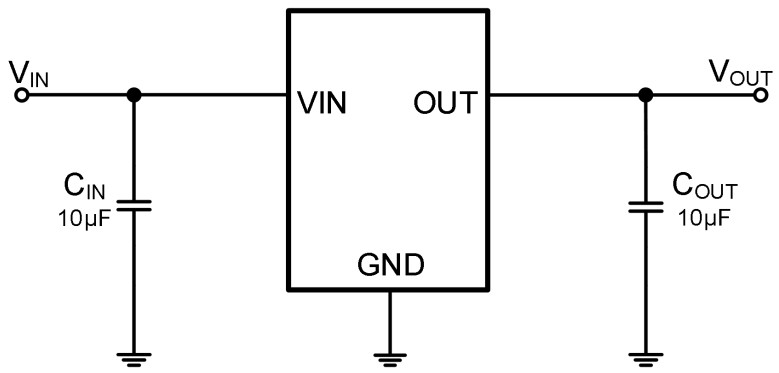
## Applications

- Power Meter
- Multicell Battery Powered Equipment
- Communication equipment
- Smoke Detector
- Audio/Video Equipment
- LED Driver

## General Description

The GP2001 series is a set of high voltage, high accuracy, low quiescent current, low dropout and low power consumption liner regulators. There are designed primarily as CMOS technology. They allow input voltages as fixed voltage regulators. These devices can be high as 45V. They are available with several fixed used with external components to obtain variable output voltages ranging from 1.8V to 5.0V. The GP2001 series are available in TO92, SOT89-3A, SOT89-3B, SOT23-3, SON763, SOT23-5 package.

## Typical Application Circuit

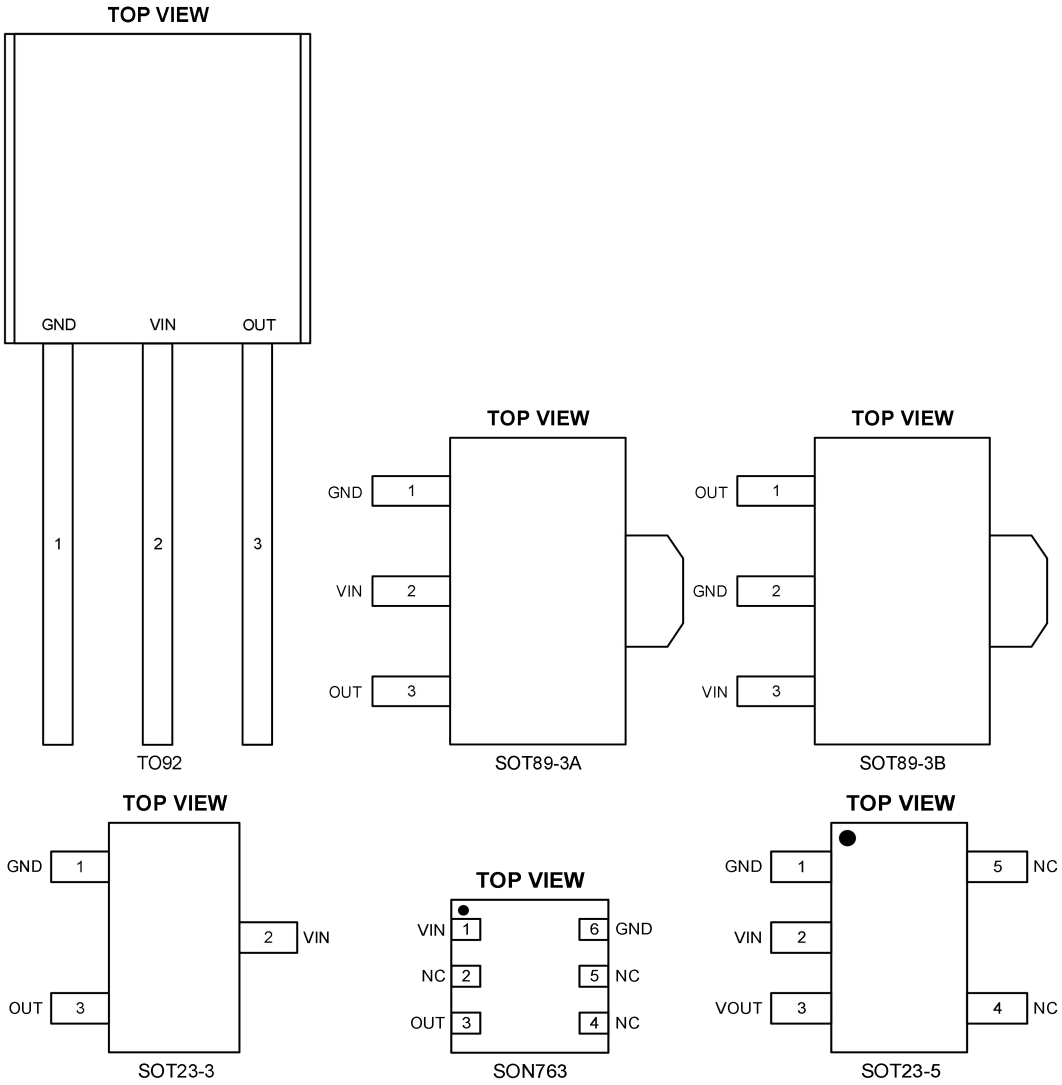



Typical Application Circuit

45V 150mA Low Power LDO

# Pin Description

## Pin Configuration




## Pin Description

| TO92 Pin No. | SOT89-3A Pin No. | SOT89-3B Pin No. | SOT23-3 Pin No. | SON763 Pin No. | SOT23-5 Pin No. | Pin Name | Function |
|---|---|---|---|---|---|---|---|
| 1 | 1 | 2 | 1 | 6 | 1 | GND | Ground pin. |
| 2 | 2 | 3 | 2 | 1 | 2 | VIN | Input voltage pin for the regulator. |
| 3 | 3 | 1 | 3 | 3 | 3 | OUT | Output voltage pin for the regulator. |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| NA | NA | NA | NA | 2,4,5 | 4,5 | NC | Not connected |

## Order Information

**GP2001①②③④**

| Designator | Symbol | Description |
|---|---|---|
| ①② | Integer | Output Voltage |
| ③ | T | TO92 |
| | P | SOT89-3A |
| | Q | SOT89-3B |
| | M | SOT23-3 |
| | S6 | SON763 |
| | T5 | SOT23-5 |
| ④ | R | RoHS / Pb Free |

| Part No. | Model | Description | Package | T/R Qty |
|---|---|---|---|---|
| TBD | GP2001-18HTR | GP2001-18HTR LDO, 1.8V, TO92 | TO92 | 1000PCS |
| TBD | GP2001-18HPR | GP2001-18HPR LDO, 1.8V, SOT89-3A | SOT89-3A | 1000PCS |
| TBD | GP2001-25HTR | GP2001-25HTR LDO, 2.5V, TO92 | TO92 | 1000PCS |
| TBD | GP2001-25HPR | GP2001-25HPR LDO, 2.5V, SOT89-3A | SOT89-3A | 1000PCS |
| TBD | GP2001-27HTR | GP2001-27HTR LDO, 2.7V, TO92 | TO92 | 1000PCS |
| TBD | GP2001-27HPR | GP2001-27HPR LDO, 2.7V, SOT89-3A | SOT89-3A | 1000PCS |
| TBD | GP2001-30HTR | GP2001-30HTR LDO, 3.0V, TO92 | TO92 | 1000PCS |
| TBD | GP2001-30HPR | GP2001-30HPR LDO, 3.0V, SOT89-3A | SOT89-3A | 1000PCS |
| TBD | GP2001-33HTR | GP2001-33HTR LDO, 3.3V, TO92 | TO92 | 1000PCS |
| TBD | GP2001-33HPR | GP2001-33HPR LDO, 3.3V, SOT89-3A | SOT89-3A | 1000PCS |
| TBD | GP2001-36HTR | GP2001-36HTR LDO, 3.6V, TO92 | TO92 | 1000PCS |
| TBD | GP2001-36HPR | GP2001-36HPR LDO, 3.6V, SOT89-3A | SOT89-3A | 1000PCS |

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| | | | | |
|---|---|---|---|---|
| TBD | GP2001-40HTR | GP2001-40HTR LDO, 4.0V, TO92 | TO92 | 1000PCS |
| TBD | GP2001-40HPR | GP2001-40HPR LDO, 4.0V, SOT89-3A | SOT89-3A | 1000PCS |
| TBD | GP2001-44HTR | GP2001-44HTR LDO, 4.4V, TO92 | TO92 | 1000PCS |
| TBD | GP2001-44HPR | GP2001-44HPR LDO, 4.4V, SOT89-3A | SOT89-3A | 1000PCS |
| TBD | GP2001-50HTR | GP2001-50HTR LDO, 5.0V, TO92 | TO92 | 1000PCS |
| TBD | GP2001-50HPR | GP2001-50HPR LDO, 5.0V, SOT89-3A | SOT89-3A | 1000PCS |
| TBD | GP2001-18HMR | GP2001-18HMR LDO, 1.8V, SOT23-3 | SOT23-3 | 3000PCS |
| TBD | GP2001-25HMR | GP2001-25HMR LDO, 2.5V, SOT23-3 | SOT23-3 | 3000PCS |
| TBD | GP2001-27HMR | GP2001-27HMR LDO, 2.7V, SOT23-3 | SOT23-3 | 3000PCS |
| TBD | GP2001-28HMR | GP2001-27HMR LDO, 2.8V, SOT23-3 | SOT23-3 | 3000PCS |
| TBD | GP2001-30HMR | GP2001-30HMR LDO, 3.0V, SOT23-3 | SOT23-3 | 3000PCS |
| TBD | GP2001-33HMR | GP2001-33HMR LDO, 3.3V, SOT23-3 | SOT23-3 | 3000PCS |
| TBD | GP2001-36HMR | GP2001-36HMR LDO, 3.6V, SOT23-3 | SOT23-3 | 3000PCS |
| TBD | GP2001-40HMR | GP2001-40HMR LDO, 4.0V, SOT23-3 | SOT23-3 | 3000PCS |
| TBD | GP2001-44HMR | GP2001-44HMR LDO, 4.4V, SOT23-3 | SOT23-3 | 3000PCS |
| TBD | GP2001-50HMR | GP2001-50HMR LDO, 5.0V, SOT23-3 | SOT23-3 | 3000PCS |
| TBD | GP2001-18HS6R | GP2001-18HS6R LDO, 1.8V, SON763 | SON763 | 3000PCS |
| TBD | GP2001-25HS6R | GP2001-25HS6R LDO, 2.5V, SON763 | SON763 | 3000PCS |

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| | | | | |
|---|---|---|---|---|
| TBD | GP2001-27HS6R | GP2001-27HS6R LDO, 2.7V, SON763 | SON763 | 3000PCS |
| TBD | GP2001-30HS6R | GP2001-30HS6R LDO, 3.0V, SON763 | SON763 | 3000PCS |
| TBD | GP2001-33HS6R | GP2001-33HS6R LDO, 3.3V, SON763 | SON763 | 3000PCS |
| TBD | GP2001-36HS6R | GP2001-36HS6R LDO, 3.6V, SON763 | SON763 | 3000PCS |
| TBD | GP2001-40HS6R | GP2001-40HS6R LDO, 4.0V, SON763 | SON763 | 3000PCS |
| TBD | GP2001-44HS6R | GP2001-44HS6R LDO, 4.4V, SON763 | SON763 | 3000PCS |
| TBD | GP2001-50HS6R | GP2001-50HS6R LDO, 5.0V, SON763 | SON763 | 3000PCS |
| TBD | GP2001-18HT5R | GP2001-18HT5R LDO, 1.8V, SOT23-5 | SOT23-5 | 3000PCS |
| TBD | GP2001-25HT5R | GP2001-25HT5R LDO, 2.5V, SOT23-5 | SOT23-5 | 3000PCS |
| TBD | GP2001-27HT5R | GP2001-27HT5R LDO, 2.7V, SOT23-5 | SOT23-5 | 3000PCS |
| TBD | GP2001-30HT5R | GP2001-30HT5R LDO, 3.0V, SOT23-5 | SOT23-5 | 3000PCS |
| TBD | GP2001-33HT5R | GP2001-30HT5R LDO, 3.3V, SOT23-5 | SOT23-5 | 3000PCS |
| TBD | GP2001-36HT5R | GP2001-36HT5R LDO, 3.6V, SOT23-5 | SOT23-5 | 3000PCS |
| TBD | GP2001-40HT5R | GP2001-40HT5R LDO, 4.0V, SOT23-5 | SOT23-5 | 3000PCS |
| TBD | GP2001-44HT5R | GP2001-44HT5R LDO, 4.4V, SOT23-5 | SOT23-5 | 3000PCS |
| TBD | GP2001-50HT5R | GP2001-50HT5R LDO, 5.0V, SOT23-5 | SOT23-5 | 3000PCS |
| TBD | GP2001-18HQR | GP2001-18HQR LDO, 1.8V, | SOT89-3B | 1000PCS |

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| | | | | |
|---|---|---|---|---|
| | | SOT89-3B | | |
| TBD | GP2001-25HQR | GP2001-25HQR LDO, 2.5V, SOT89-3B | SOT89-3B | 1000PCS |
| TBD | GP2001-27HQR | GP2001-27HQR LDO, 2.7V, SOT89-3B | SOT89-3B | 1000PCS |
| TBD | GP2001-30HQR | GP2001-30HQR LDO, 3.0V, SOT89-3B | SOT89-3B | 1000PCS |
| TBD | GP2001-33HQR | GP2001-33HQR LDO, 3.3V, SOT89-3B | SOT89-3B | 1000PCS |
| TBD | GP2001-36HQR | GP2001-36HQR LDO, 3.6V, SOT89-3B | SOT89-3B | 1000PCS |
| TBD | GP2001-40HQR | GP2001-40HQR LDO, 4.0V, SOT89-3B | SOT89-3B | 1000PCS |
| TBD | GP2001-44HQR | GP2001-44HQR LDO, 4.4V, SOT89-3B | SOT89-3B | 1000PCS |
| TBD | GP2001-50HQR | GP2001-50HQR LDO, 5.0V, SOT89-3B | SOT89-3B | 1000PCS |

**Mark Rule**

| Voltage (V) | TO92 | SOT23-3 | SON763 | SOT23-5 | SOT89-3A | SOT89-3B |
|---|---|---|---|---|---|---|
| 1.8V | 7T18YL | 7318YL | 7S18YL | 7518YL | 7P18YL | 7Q18YL |
| 2.5V | 7T25YL | 7325YL | 7S25YL | 7525YL | 7P25YL | 7Q25YL |
| 2.7V | 7T27YL | 7327YL | 7S27YL | 7527YL | 7P27YL | 7Q27YL |
| 2.8V | 7T28YL | 7328YL | 7S28YL | 7528YL | 7P28YL | 7Q28YL |
| 3.0V | 7T30YL | 7330YL | 7S30YL | 7530YL | 7P30YL | 7Q30YL |
| 3.3V | 7T33YL | 7333YL | 7S33YL | 7533YL | 7P33YL | 7Q33YL |
| 3.6V | 7T36YL | 7336YL | 7S36YL | 7536YL | 7P36YL | 7Q36YL |
| 4.0V | 7T40YL | 7340YL | 7S40YL | 7540YL | 7P40YL | 7Q40YL |
| 4.4V | 7T44YL | 7344YL | 7S44YL | 7544YL | 7P44YL | 7Q44YL |
| 5.0V | 7T50YL | 7350YL | 7S50YL | 7550YL | 7P50YL | 7Q50YL |

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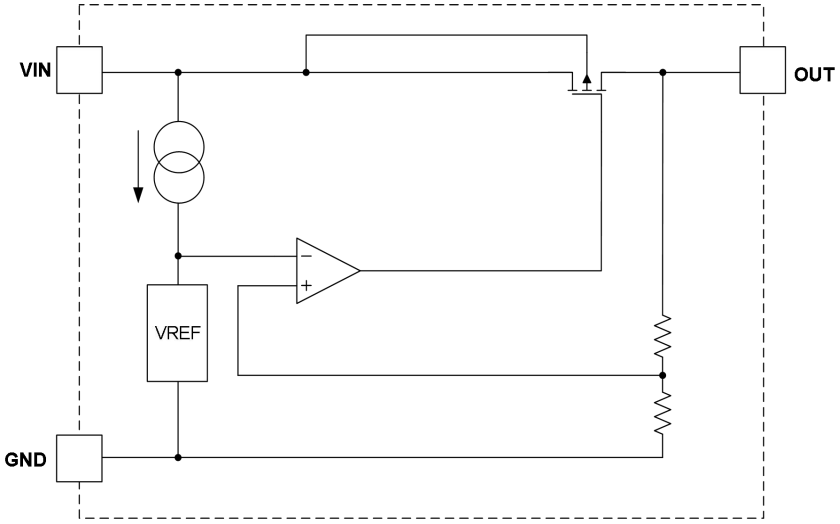
# Functional Block Diagram




Functional Block Diagram

# Specifications

### Absolute Maximum Ratings (1) (2)

| Item | | Min | Max | Unit |
|---|---|---|---|---|
| $V_{IN}$ voltage | | 4.5 | 50 | V |
| $V_{OUT}$ voltage | | 1.5 | 6 | V |
| Output Current (3) | | 200 | | mA |
| Power Dissipation | TO92 | 1.0 | 1.2 | W |
| | SOT23-3 | 0.5 | 0.7 | |
| | SON763 | 0.4 | 0.6 | |
| | SOT23-5 | 0.6 | 0.8 | |
| | SOT89-3A/B | 0.8 | 1.0 | |
| Operating Ambient Temperature | | -40 | 85 | °C |
| Maximum junction temperature | | | 150 | °C |
| Storage temperature, $T_{stg}$ | | –50 | 85 | °C |
| Lead Temperature (Soldering, 10sec.) | | | 260 | °C |

Note (1): Exceeding these ratings may damage the device.

Note (2): The device is not guaranteed to function outside of its operating conditions.

Note (3): $I_{OUT(MAX)} = P_D / (V_{IN}-V_{OUT})$

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### Recommended Operating Conditions (1)

| Item | Min | Max | Unit |
|---|---|---|---|
| Operating junction temperature (1) | –40 | 125 | °C |
| Operating temperature range | -40 | 85 | °C |
| Input voltage $V_{IN}$ | 4.75 | 45 | V |
| Output current (2) | 0 | 150 | mA |
| Power Dissipation | Based on the calculation (3) | | W |

Note (1): All limits specified at room temperature ($T_A$ = 25°C) unless otherwise specified. All room temperature limits are 100% production tested. All limits at temperature extremes are ensured through correlation using standard Statistical Quality Control (SQC) methods. All limits are used to calculate Average Outgoing Quality Level (AOQL).

Note (2): $V_{IN} – V_{OUT}$ = 2V.

Note (3): $P_D = I_{OUT(MAX)} \times (V_{IN}-V_{OUT})$.

### Thermal Information

| Item | Description | TO92 3Pin | SOT89 3 Pin | SOT23 3 Pin | SON763 6 Pin | SOT23 5 Pin | Unit |
|---|---|---|---|---|---|---|---|
| $R_{\theta JA}$ | Junction-to-ambient thermal resistance (1)(2) | 143.5 | 55 | 208 | 95 | 180 | °C/W |
| $R_{\theta JC(top)}$ | Junction-to-case (top) thermal resistance | 74.5 | 88 | 112 | 49.5 | 130 | °C/W |
| $R_{\theta JB}$ | Junction-to-board thermal resistance | N/A | 9.6 | 56 | 15.5 | 45 | °C/W |
| $\psi_{JT}$ | Junction-to-top characterization parameter | 24.3 | 6.2 | 9.2 | 3.2 | 35 | °C/W |
| $\psi_{JB}$ | Junction-to-board characterization parameter | 121 | 9.7 | 52 | 15.5 | 45 | °C/W |
| $R_{\theta JC(bot)}$ | Junction-to-case (bottom) thermal resistance | N/A | 7.7 | N/A | N/A | N/A | °C/W |

Note (1): The package thermal impedance is calculated in accordance to JESD 51-7.

Note (2): Thermal Resistances were simulated on a 4-layer, JEDEC board.

# Electrical Characteristics

The following specifications apply for $V_{IN}$ = 12V, $T_A$=25℃, $C_{IN}$=$C_{OUT}$=10μF, unless specified otherwise.

# 45V 150mA Low Power LDO

| Parameter | Symbol | Test Conditions | | Min | Typ. | Max | Units |
|---|---|---|---|---|---|---|---|
| Input Range | $V_{IN}$ | $I_{OUT}$ = 10mA | | 4.75 | | 45 | V |
| Output Range | $V_{OUT}$ | $I_{OUT}$ = 10mA | | $V_{OUT}$×0.98 | $V_{OUT}$ | $V_{OUT}$×1.02 | V |
| Output Voltage | $\Delta V_{OUT}$ | $V_{IN}$ = 12V, $I_{OUT}$ = 10mA | | 4.9 | 5 | 5.1 | V |
| | | | | 3.234 | 3.3 | 3.366 | |
| | | | | 2.94 | 3.0 | 3.06 | |
| Quiescent Current | $I_Q$ | $V_{IN}$ = 6V, $V_{OUT}$ = 5V, 0mA < $I_{OUT}$ < 1mA | | | 2 | | μA |
| Maximum Output Current | $I_{OUT\_PK}$ | $V_{IN}$ = $V_{OUT}$ + 2V | | 150 | | | mA |
| Dropout Voltage | $V_{DROP}$ | $V_{OUT}$ = 5V | $I_{OUT}$ = 1mA | | 8 | 12 | mV |
| | | | $I_{OUT}$ = 100mA | | 600 | | |
| Line Regulation | $\Delta V_{LINE}$ | $V_{IN}$=7 ~ 24V, $V_{OUT}$ = 5V, $I_{OUT}$ = 1mA | | | 0.02 | | %V |
| | | $V_{IN}$=24 ~ 45V, $V_{OUT}$ = 5V, $I_{OUT}$ = 1mA | | | 0.08 | | |
| Load Regulation | $\Delta V_{LOAD}$ | $V_{IN}$=7V, $I_{OUT}$=1~100mA | | | 30 | 50 | mV |
| Short Current | $I_{SHORT}$ | $V_{OUT}$ Short to GND with 1Ω (1ms pulse), $V_{IN}$ = 40V | | | 180 | | mA |
| Power Supply Rejection Rate | PSRR | $V_{IN}$ = 10V, $V_{PP}$ = 0.5V, $I_{OUT}$ = 1mA | F = 100Hz | | 65 | | dB |
| | | | F = 1kHz | | 60 | | |
| | | | F = 10kHz | | 55 | | |
| Output Noise Voltage | $e_{NO}$ | 10Hz to 100kHz, $C_{OUT}$ = 10 μF, $I_{OUT}$=10mA | | | ±100 | | μVRMS |
| Thermal Shutdown Protection | $T_{SD}$ | $V_{IN}$ = 12V, $I_{OUT}$ = 1mA | | | 165 | | ℃ |

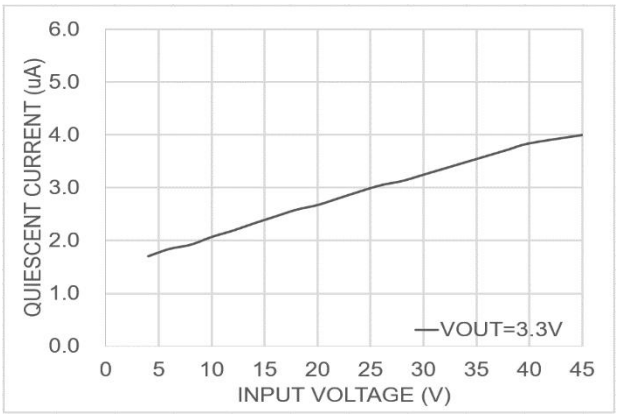
| | | | | | | |
|---|---|---|---|---|---|---|
| Temperature Coefficient | $\Delta V_O/\Delta T$ | | | ±0.5 | | mV/°C |

# Typical Performance Characteristics

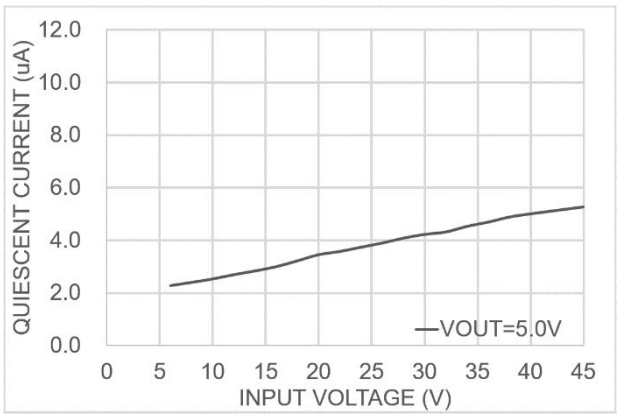
Note (1): Typical performance characteristics below based on $T_A$ = 25°C, unless otherwise noted.

Note (2): $V_{OUT}$=3.3V, $V_{IN}$=$V_{OUT}$+2V, $C_{IN}$=10μF, $C_{OUT}$=10μF, package is SOT89-3A/B, unless otherwise noted.

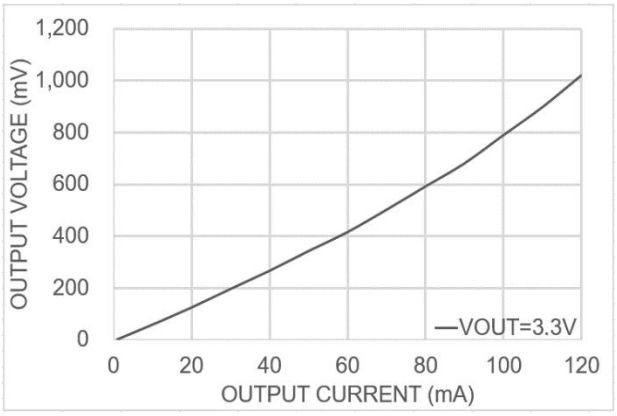
Quiescent Current
VOUT=3.3V



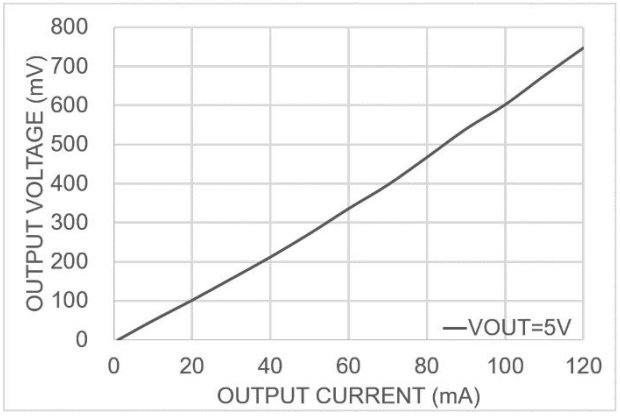

Quiescent Current
VOUT=5V




Dropout Voltage vs Output Current
VOUT=3.3V




Dropout Voltage vs Output Current
VOUT=5V




Output Current vs Output Voltage
VOUT=3.3V

Output Current vs Output Voltage
VOUT=5V

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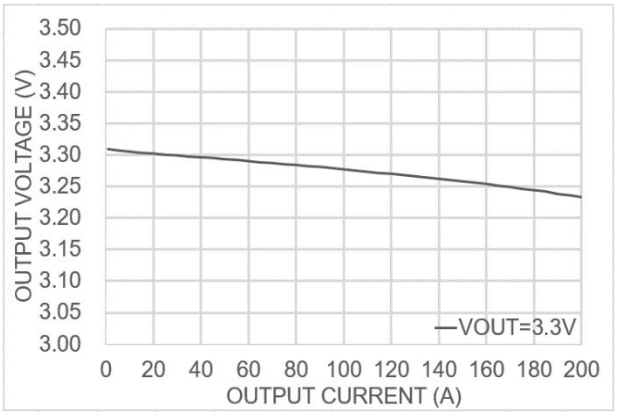
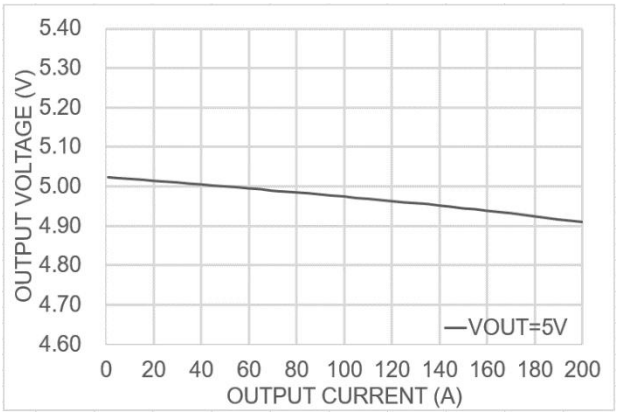
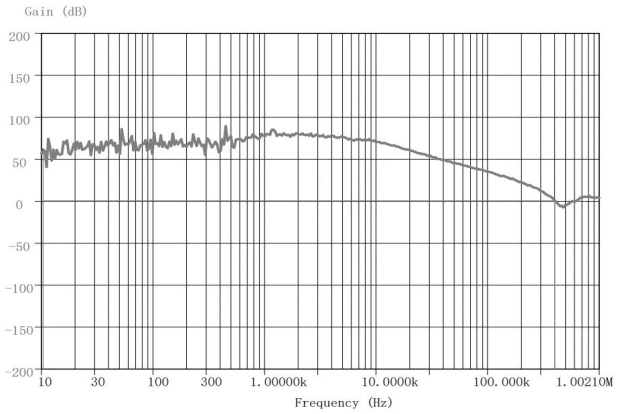


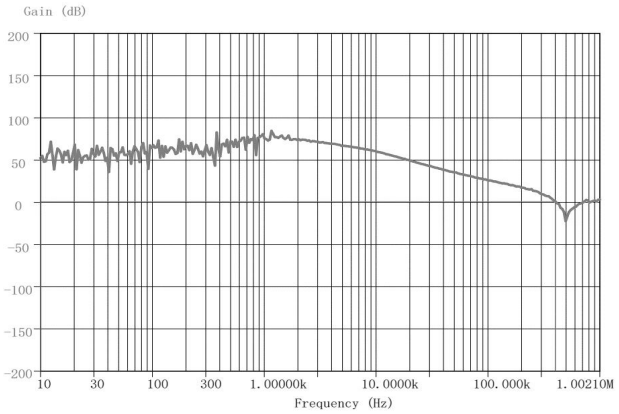

Power Supply Rejection Ratio

VOUT=3.3V



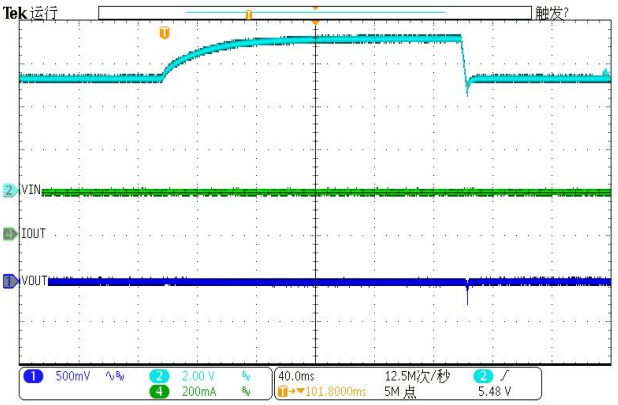

Power Supply Rejection Ratio

VOUT=5V



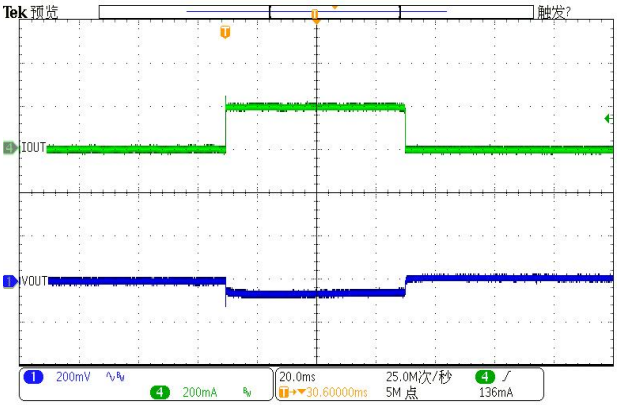

line-Transient Response

VOUT=3.3V




Load-Transient Response

VOUT=3.3V



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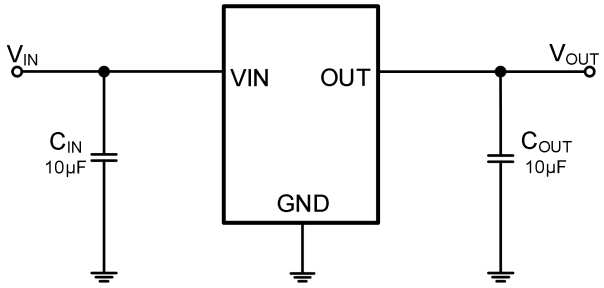
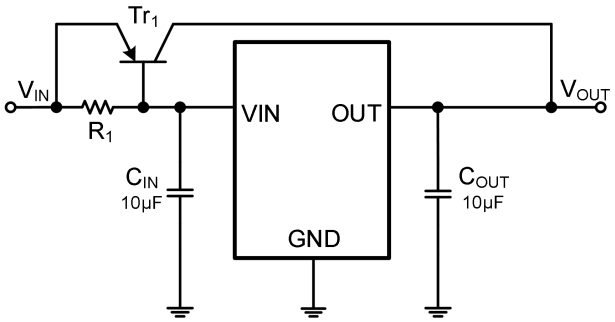
# Applications Information

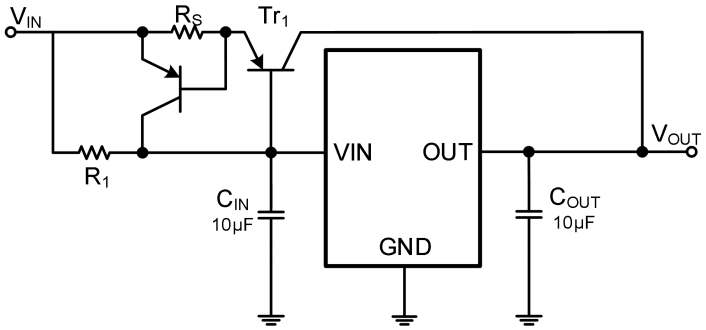
### Basic Circuits




### High Output Current Positive Voltage Regulator

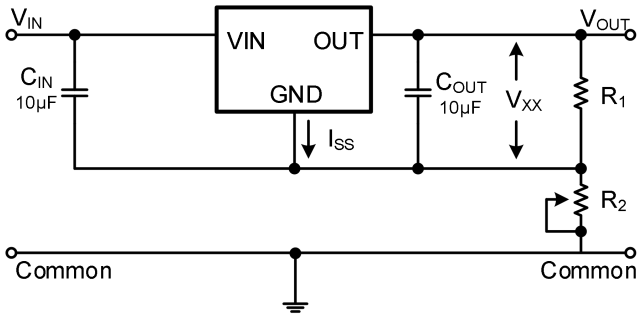



### Short-Circuit Protection by Tr1

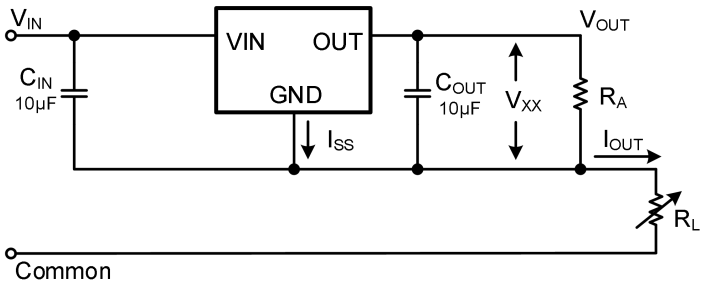


# 45V 150mA Low Power LDO

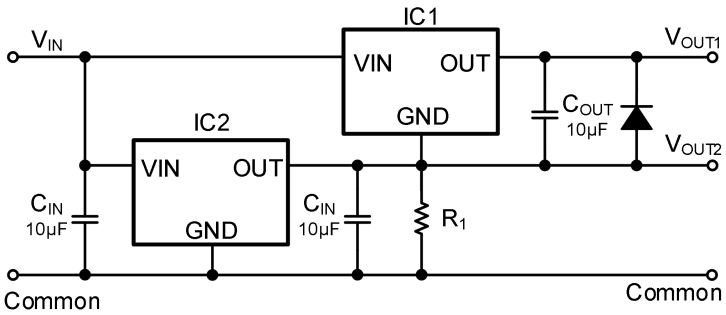
## Circuit for Increasing Output Voltage




## Constant Current Regulator




## Dual Supply



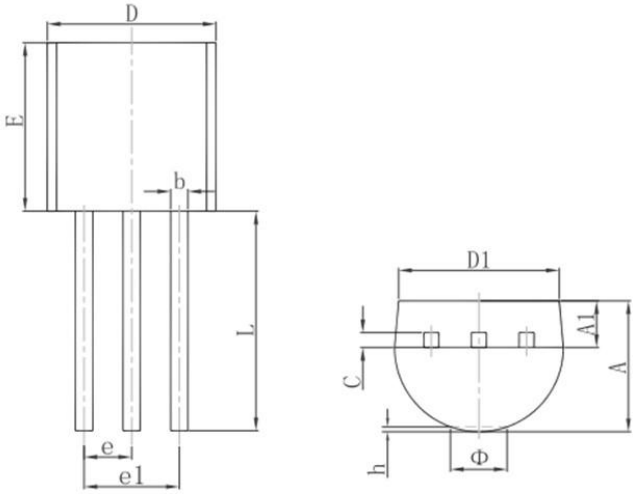

## Notes on Use

1. Please use this IC within the stated absolute maximum ratings. The IC is liable to malfunction should the ratings be exceeded.
2. Where wiring impedance is high, operations may become unstable due to noise and/or phase lag depending on output current. Please keep the resistance low between $V_{IN}$ and GND wiring in particular.
3. Please wire the input capacitor ($C_{IN}$) and the output capacitor ($C_{OUT}$) as close to the IC as possible.

45V 150mA Low Power LDO

# Packaging Information

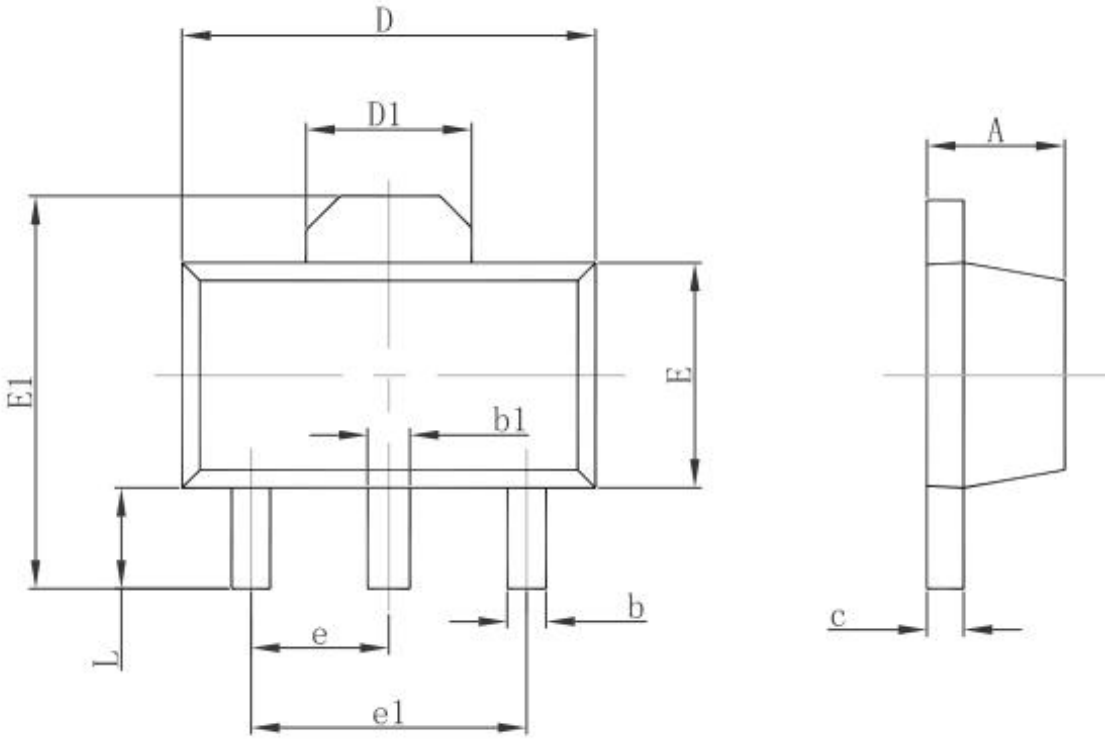
### Pin TO92 Packaging Information




| Symbol | Dimensions In Millimeters | | Dimensions In Inches | |
|---|---|---|---|---|
| | Min. | Max. | Min. | Max. |
| A | 3.300 | 3.700 | 0.130 | 0.146 |
| A1 | 1.100 | 1.400 | 0.043 | 0.055 |
| b | 0.380 | 0.550 | 0.015 | 0.022 |
| c | 0.360 | 0.510 | 0.014 | 0.020 |
| D | 4.300 | 4.700 | 0.169 | 0.185 |
| D1 | 3.430 | | 0.135 | |
| E | 4.300 | 4.700 | 0.169 | 0.185 |
| e | 1.270 TYP. | | 0.050 TYP. | |
| e1 | 2.440 | 2.640 | 0.096 | 0.104 |
| L | 14.100 | 14.500 | 0.555 | 0.571 |
| Φ | | 1.600 | | 0.063 |
| h | 0.000 | 0.380 | 0.000 | 0.015 |

# 45V 150mA Low Power LDO

## Pin SOT89 Packaging Information

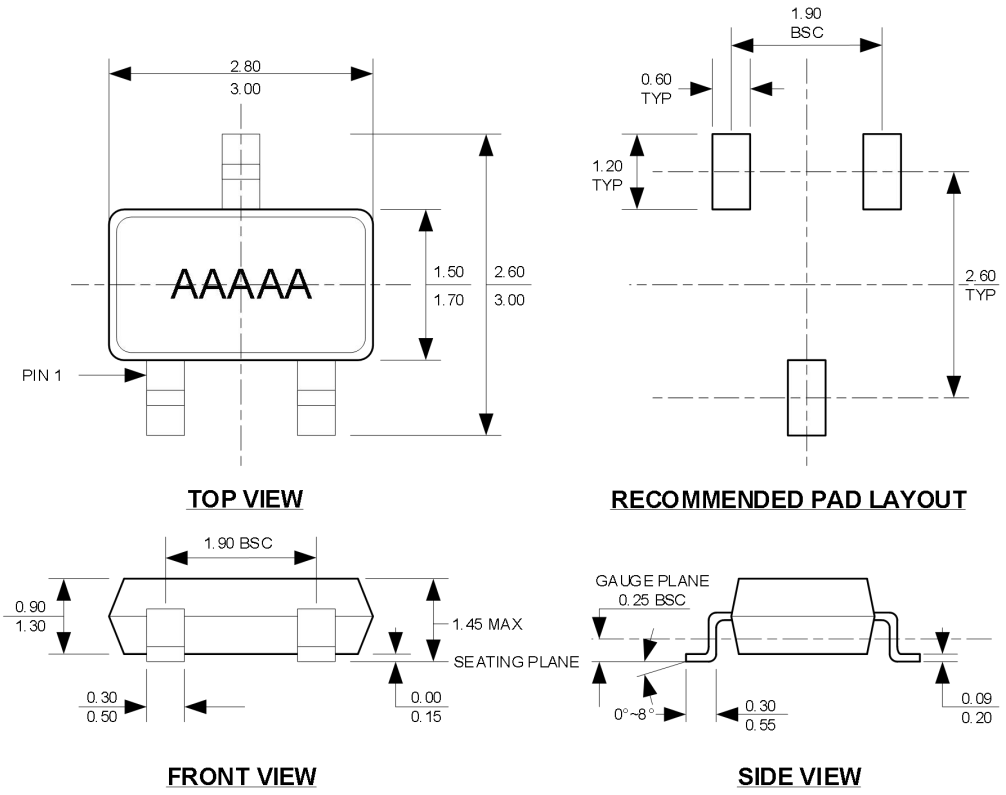



| Symbol | Dimensions In Millimeters | | Dimensions In Inches | |
|---|---|---|---|---|
| | Min. | Max. | Min. | Max. |
| A | 1.400 | 1.600 | 0.055 | 0.063 |
| b | 0.320 | 0.520 | 0.013 | 0.020 |
| b1 | 0.400 | 0.580 | 0.016 | 0.023 |
| c | 0.350 | 0.440 | 0.014 | 0.017 |
| D | 4.400 | 4.600 | 0.173 | 0.181 |
| D1 | 1.550 REF. | | 0.061 REF. | |
| E | 2.300 | 2.600 | 0.091 | 0.102 |
| E1 | 3.940 | 4.250 | 0.155 | 0.167 |
| e | 1.500 TYP. | | 0.060 TYP. | |
| e1 | 3.000 TYP. | | 0.118 TYP. | |
| L | 0.900 | 1.200 | 0.035 | 0.047 |

# 45V 150mA Low Power LDO

## 3-Pin SOT23 Packaging Information

**SOT23-3**

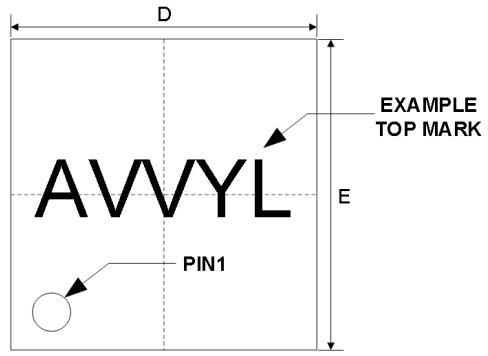



NOTE:
1. CONTROL DIMENSION IS IN INCHES. DIMENSION IN BRACKET IS IN MILLIMETERS.
2. PACKAGE LENGTH DOES NOT INCLUDE MOLD FLASH, PROTRUSIONS OR GATE BURRS.
3. PACKAGE WIDTH DOES NOT INCLUDE INTERLEAD FLASH OR PROTRUSIONS.
4. LEAD COPLANARITY (BOTTOM OF LEADS AFTER FORMING) SHALL BE 0.004" INCHES MAX.
5. DRAWING CONFORMS TO JEDEC MS-012, VARIATION BA.
6. DRAWING IS NOT TO SCALE.

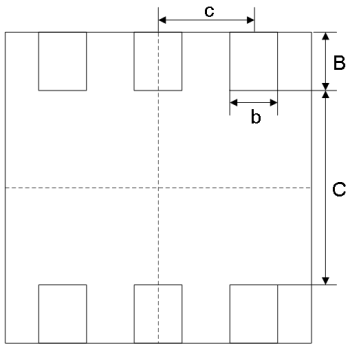
# 45V 150mA Low Power LDO

## 6-Pin SON763 Packaging Information

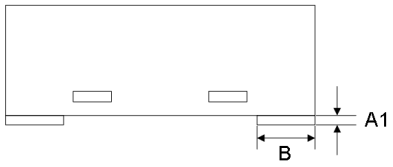
SON763 (1.6mm×1.6mm)



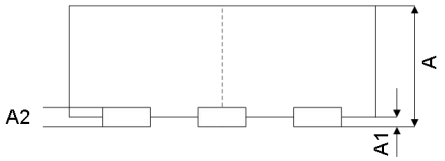

TOP VIEW




BOTTOM VIEW

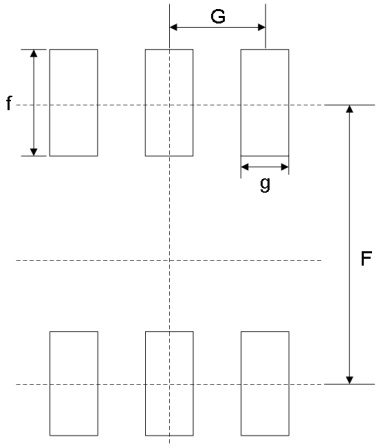



SIDE VIEW A




SIDE VIEW B

| SYMBOL | MILLIMETER | | |
|---|---|---|---|
| | MIN | NOM | MAX |
| A | 0.72 | 0.76 | 0.80 |
| A1 | 0.00 | 0.03 | 0.05 |
| A2 | 0.08 | 0.13 | 0.18 |
| B | 0.20 | 0.30 | 0.40 |
| b | 0.17 | 0.22 | 0.27 |
| C | | 1.00 | |
| c | | 0.50 | |
| D | 1.50 | 1.60 | 1.70 |
| E | 1.50 | 1.60 | 1.70 |
| F | | 1.40 | |
| f | | 0.55 | |
| G | | 0.50 | |
| g | | 0.30 | |



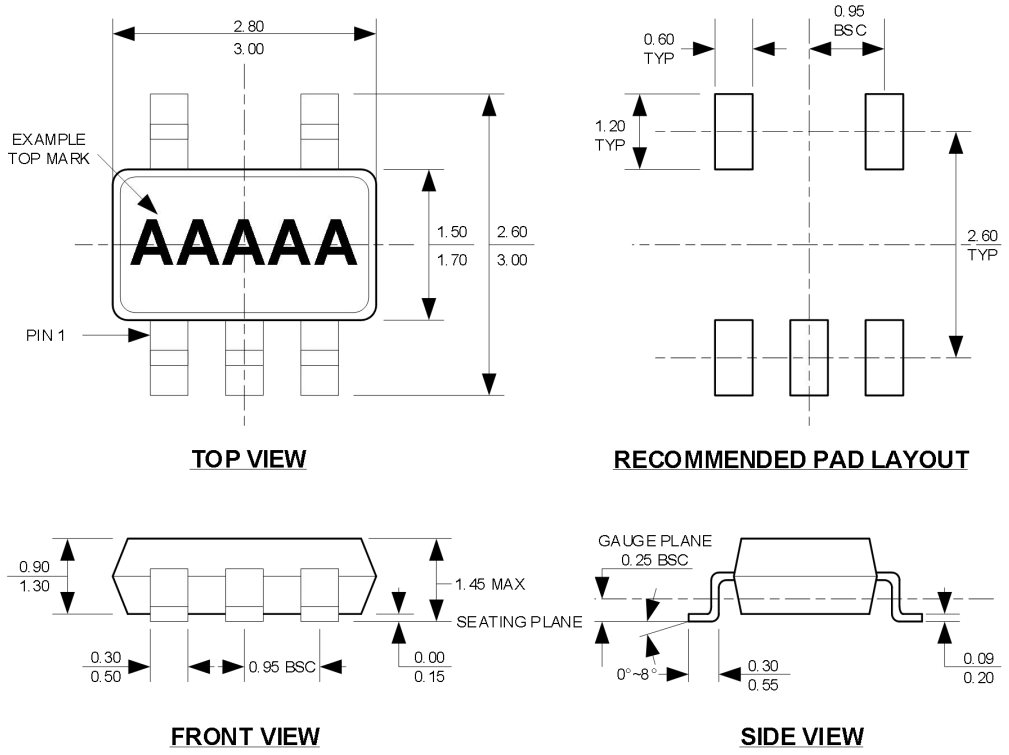

RECOMMENDED LAND PATTERN

NOTE:
1. CONTROL DIMENSION IS IN INCHES. DIMENSION IN BRACKET IS IN MILLIMETERS.
2. PACKAGE LENGTH DOES NOT INCLUDE MOLD FLASH, PROTRUSIONS OR GATE BURRS.
3. PACKAGE WIDTH DOES NOT INCLUDE INTERLEAD FLASH OR PROTRUSIONS.
4. LEAD COPLANARITY (BOTTOM OF LEADS AFTER FORMING) SHALL BE 0.004" INCHES MAX.
5. DRAWING CONFORMS TO JEDEC MS-012, VARIATION BA.
6. DRAWING IS NOT TO SCALE.

# 45V 150mA Low Power LDO

## 5-Pin SOT23 Packaging Information

**SOT23-5**




NOTE:
1. CONTROL DIMENSION IS IN INCHES. DIMENSION IN BRACKET IS IN MILLIMETERS.
2. PACKAGE LENGTH DOES NOT INCLUDE MOLD FLASH, PROTRUSIONS OR GATE BURRS.
3. PACKAGE WIDTH DOES NOT INCLUDE INTERLEAD FLASH OR PROTRUSIONS.
4. LEAD COPLANARITY (BOTTOM OF LEADS AFTER FORMING) SHALL BE 0.004" INCHES MAX.
5. DRAWING CONFORMS TO JEDEC MS-012, VARIATION BA.
6. DRAWING IS NOT TO SCALE.