

MEL71XX Series Current Regulators

MEL71XX series

is a low dropout current regulator rated for 260~350mA constant sink current.

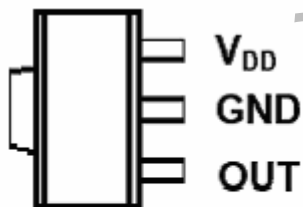
FEATURES

- Supply voltage range: 2.7V~6.0V ;
- 260~350mA constant sink current ;
- no external components required ;
- Low dropout voltage ;
- Packages: SOT89-3 .

APPLICATIONS

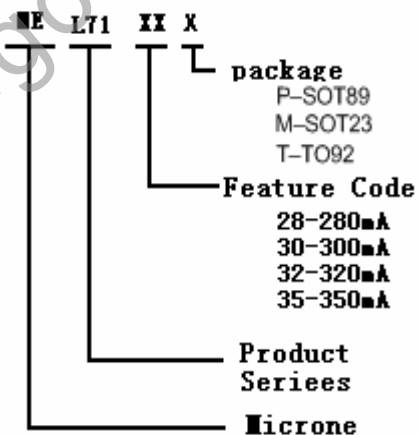
- Power LED driver

PIN CONFIGURATION

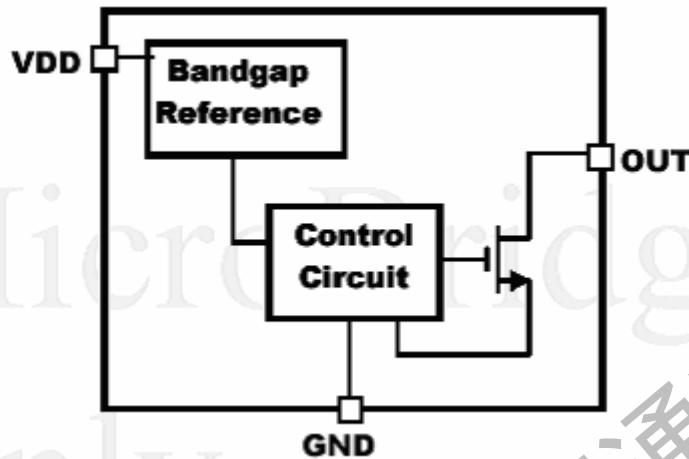


SOT89-3
(Top View)

Selection Guide



Block Diagram



Absolute Maximum Ratings

| PARAMETER | SYMBOL | DESCRIPTION | UNIT |
|--------------------------------|--------------|-------------------------------|------|
| Input Voltage | V_{DD} | -0.3 ~ 7 | V |
| Output Voltage | V_{LEDM} | -0.3 ~ 7 | V |
| CE pin Voltage | V_{CE} | $V_{SS}-0.3 \sim V_{out}+0.3$ | V |
| Operating Ambient Temperature | T_{max} | 150 | °C |
| Storage Temperature | T_{stg} | -40 ~ +150 | °C |
| Soldering Temperature And Time | T_{solder} | 260°C, 10s | |

Recommended Operating Conditions

| PARAMETER | SYMBOL | Min | Typ | Max | UNIT |
|-------------------------------|-----------|-----|-----|-----|------|
| Supply Voltage | V_{DD} | 2.7 | | 6 | V |
| Output sink current | I_{out} | | | 400 | mA |
| Operating Ambient Temperature | T_a | -40 | | +85 | °C |

Electrical Characteristics

MEL71XX

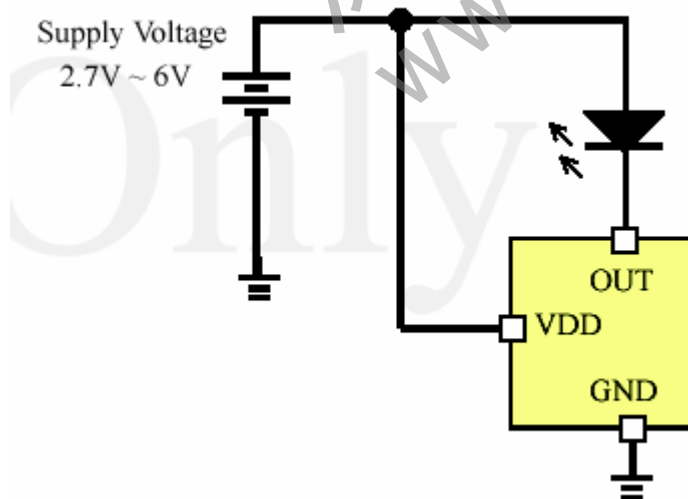
(V_{DD}=3.7V, T_a=25°C, No Load, Unless otherwise stated)

| PARAMETER | SYMBOL | CONDITION | MIX | TYP | MAX | UNIT |
|---------------------|-------------------|--|-----|-----|-----|------|
| Output Sink Current | I _{sink} | V _{OUT} =0.2V | 234 | 260 | 286 | mA |
| | | | 252 | 280 | 308 | |
| | | | 270 | 300 | 330 | |
| | | | 288 | 320 | 352 | |
| | | | 315 | 350 | 385 | |
| Line Regulation | | V _{DD} =3V~6V, V _{OUT} =0.2V | | | 1 | mA/V |
| Dropout Voltage | V _{OUTL} | | | 130 | | mV |
| Supply Current | I _{DD} | | | 90 | | μ A |

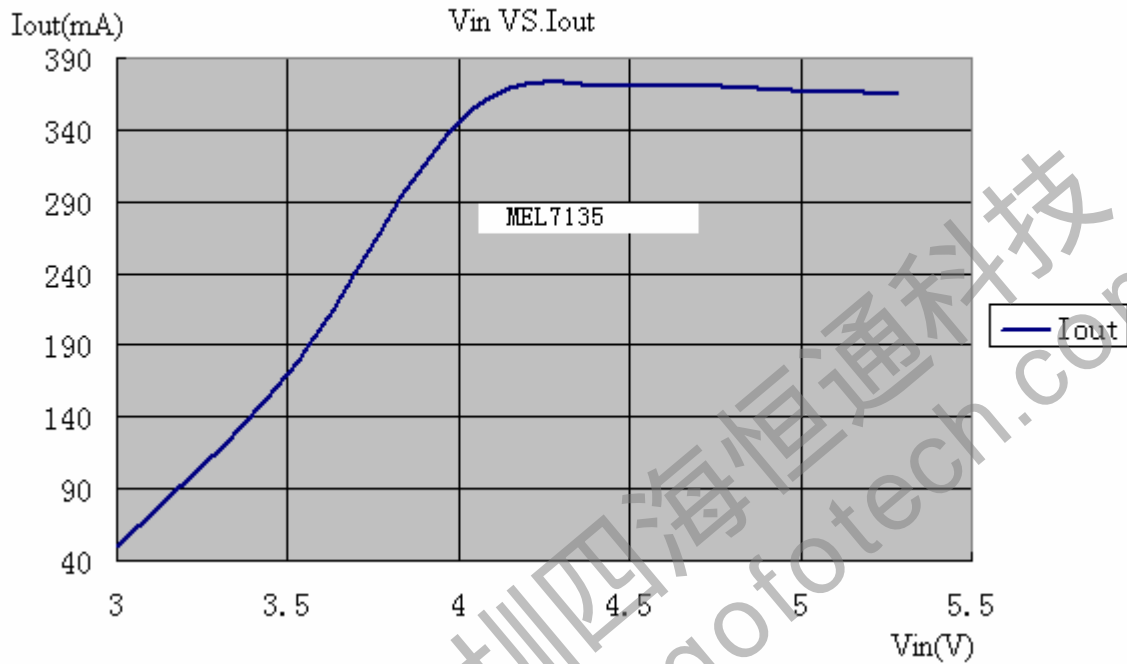
Notice1 :

Output dropout voltage: 90% x I_{out} @ V_{out}=200mv

Typical Applications

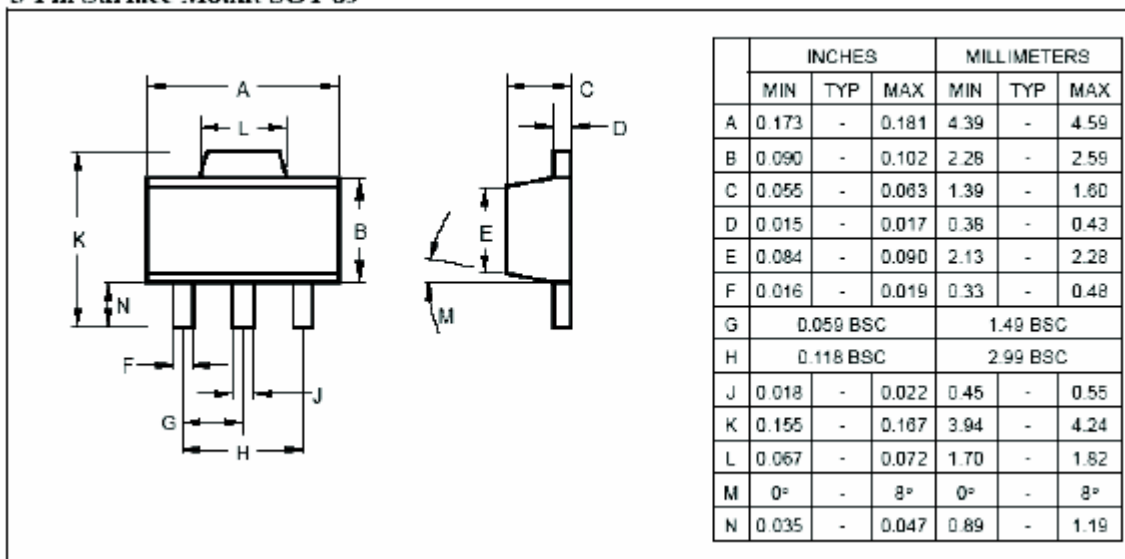


Type Characteristics



Package Dimensions

3-Pin Surface Mount SOT-89



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