

MEL71XX Series Current Regulators

General Description

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 ;

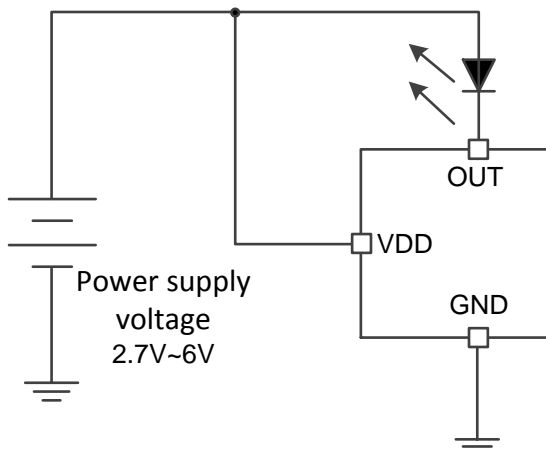
Typical Application

- Power LED driver

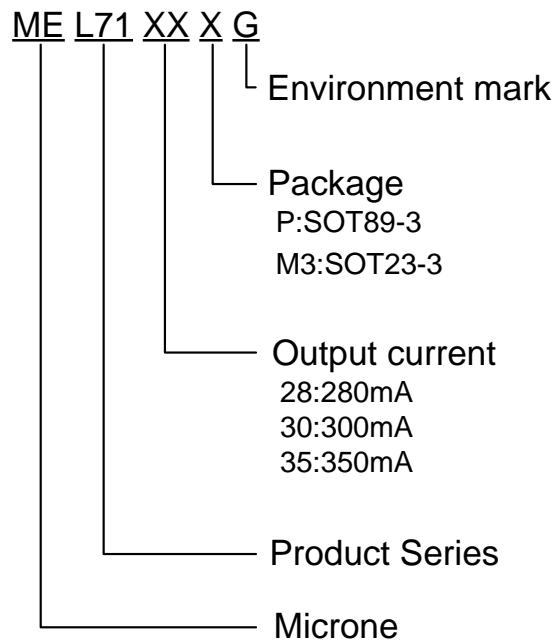
Package

- 3-pin SOT89-3、SOT23-3

Typical Application Circuit



Selection Guide



product series	product description
MEL7126PG	Output current: 260mA; Package: SOT89-3
MEL7128PG	Output current: 280mA; Package: SOT89-3
MEL7130PG	Output current: 300mA; Package: SOT89-3
MEL7132PG	Output current: 320mA; Package: SOT89-3
MEL7135PG	Output current: 350mA; Package: SOT89-3
MEL7135M3G	Output current: 350mA; Package: SOT23-3

NOTE: If you need other current or package, please contact our sales staff.

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

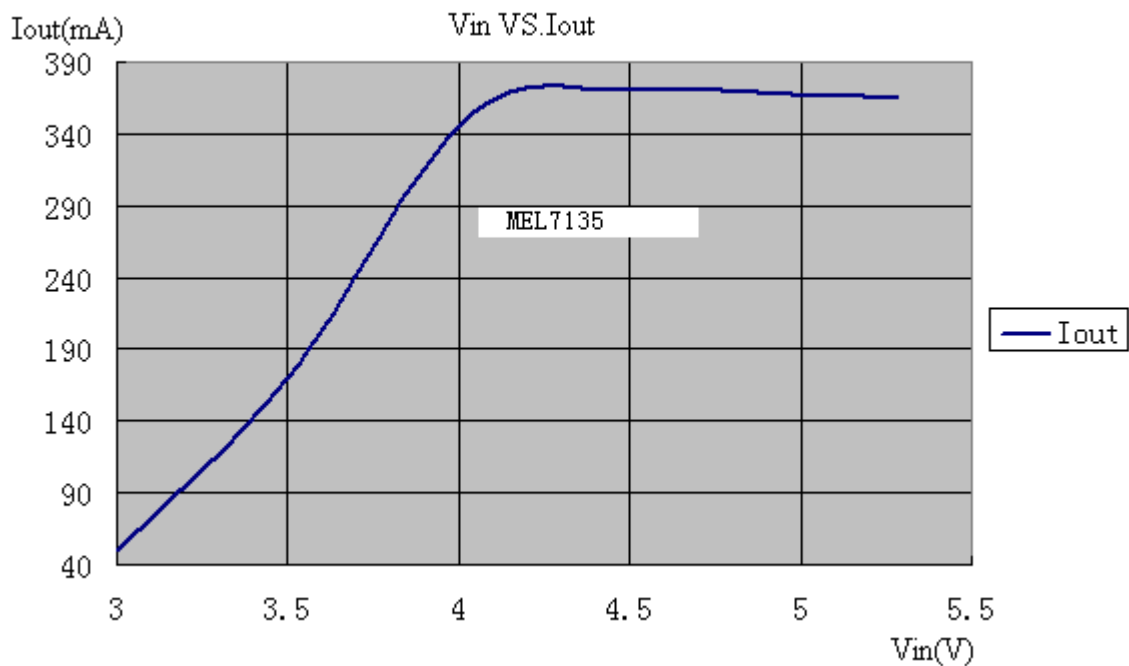
Electrical Characteristics

($V_{DD}=3.7V$, $T_a=25^{\circ}C$, No Load, unless otherwise stated)

Parameter	Symbol	Condition	Min	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		$V_{DD}=3V\sim 6V$, $V_{OUT}=0.2V$			1	mA/V
Dropout Voltage	V_{OUTL}			130		mV
Supply Current	I_{DD}			90		μA

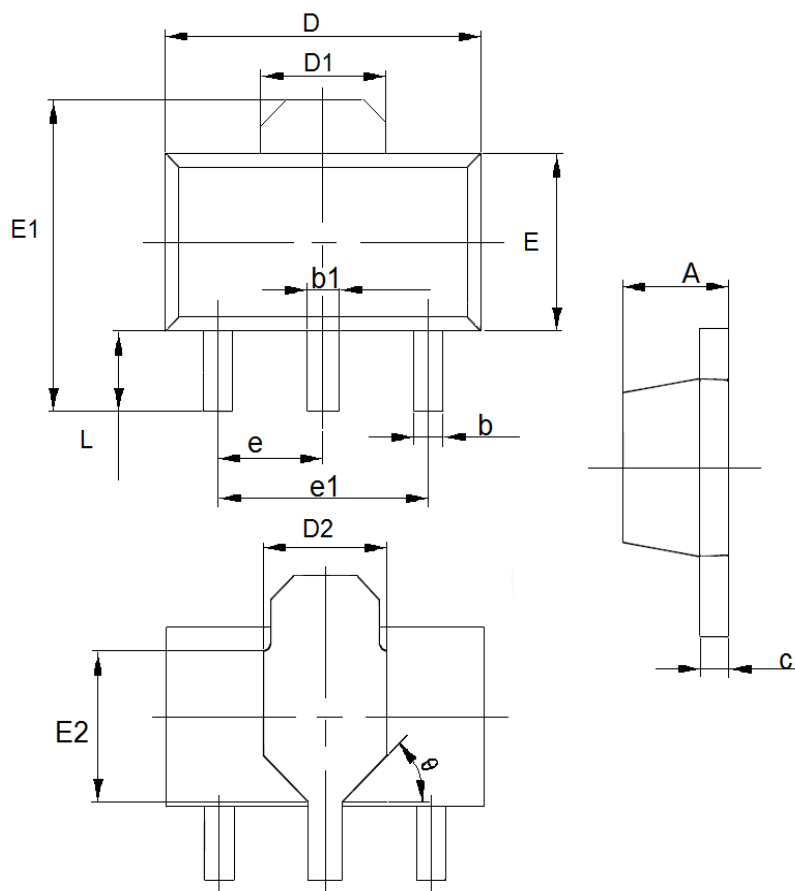
Notice1: Output dropout voltage: 90% x I_{out} @ $V_{out}=200mv$

Type Characteristics



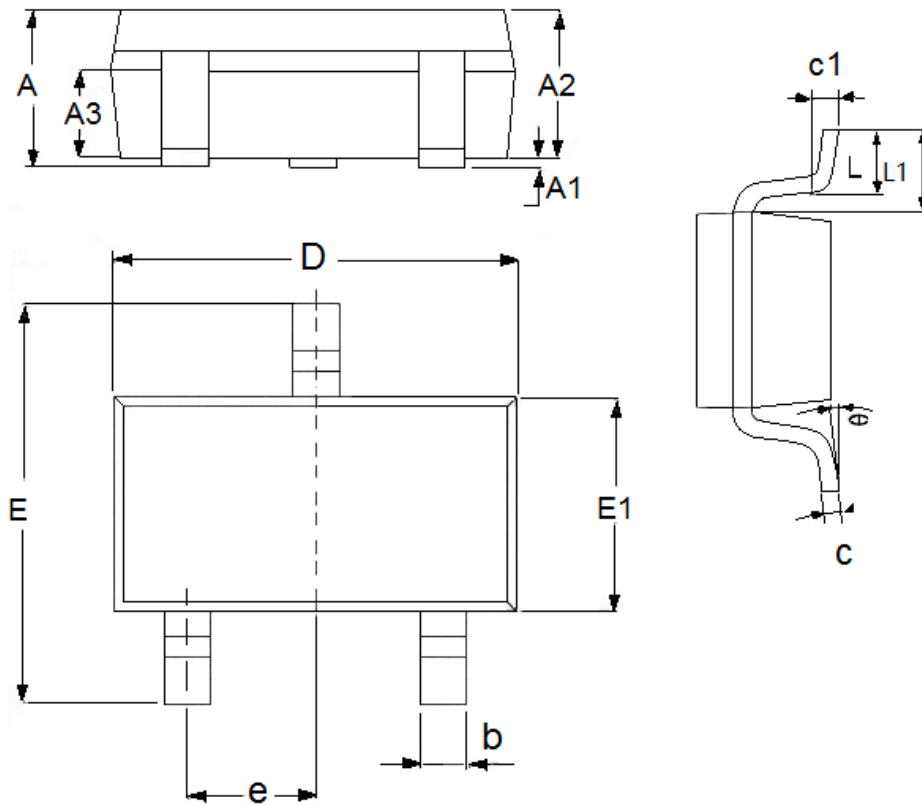
Packaging Information

- Packaging Type: SOT89-3



DIM	Millimeters		Inches	
	Min	Max	Min	Max
A	1.4	1.6	0.0551	0.0630
b	0.32	0.52	0.0126	0.0205
b1	0.4	0.58	0.0157	0.0228
c	0.35	0.45	0.0138	0.0177
D	4.4	4.6	0.1732	0.1811
D1	1.55(TYP)		0.061(TYP)	
D2	1.75(TYP)		0.0689(TYP)	
e1	3.0(TYP)		0.1181(TYP)	
E	2.3	2.6	0.0906	0.1023
E1	3.94	4.4	0.1551	0.1732
E2	1.9(TYP)		0.0748(TYP)	
e	1.5(TYP)		0.0591(TYP)	
L	0.8	1.2	0.0315	0.0472
θ	45°		45°	

● Packaging Type: SOT23-3



DIM	Millimeters		Inches	
	Min	Max	Min	Max
A	1.05	1.45	0.0413	0.0571
A1	0	0.15	0.0000	0.0059
A2	0.9	1.3	0.0354	0.0512
A3	0.6	0.7	0.0236	0.0276
b	0.25	0.5	0.0098	0.0197
c	0.1	0.25	0.0039	0.0098
D	2.8	3.1	0.1102	0.1220
E	2.6	3.1	0.1023	0.1220
E1	1.5	1.8	0.0591	0.0709
e	0.95(TYP)		0.0374(TYP)	
L	0.25	0.6	0.0098	0.0236
L1	0.59(TYP)		0.0232(TYP)	
θ	0	8°	0.0000	8°
c1	0.2(TYP)		0.0079(TYP)	

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