

## Adjustable Shunt Regulators

### Features:

- Programmable output voltage range from 2.5V to 36V (GM431) 1.24V to 16V(GM432)
- Low dynamic output impedance 0.05 $\Omega$ , typical
- Reference voltage tolerance : 0.5%, 1%
- Sink current capability of 1.0~100mA (GM431) 80 $\mu$ A~100mA(GM432)
- Fast turn-on response
- Temperature compensated within rated range of operation
- Low output noise voltage

### Application :

Switching Power Supply, Battery Chargers, AC - DC Adaptor, Amplifier, Monitor, VCD, TVs, Low Voltage Output of Linear Regulator (3.3V ~2.5V or 1.8V), Linear Regulator, Constant Current Source 1 Sink, Under/Over-Voltage Protection, Crowbar, Zener Diode, Crowbar, Voltage Monitor, Instrumentation, Computer Disk Drives.

Part No.	Reference Voltage (V)	Max. $V_{KA}$ Cathode (V)	Operation Current		Voltage Tolerance	Package
			Min.	Max.		
GM431A	2.5	36	1mA	100mA	0.5%	SOT-23, TO-92, SOT-89, SOP-8
GM431B	2.5	36	1mA	100mA	1.0%	SOT-23, TO-92, SOT-89, SOP-8
GM432A	1.24	16	80 $\mu$ A	100mA	0.5%	SOT-25, SOT-23, TO-92, SOT-89, SOP-8
GM432B	1.24	16	80 $\mu$ A	100mA	1.0%	SOT-25, SOT-23, TO-92, SOT-89, SOP-8
GM1431A	2.5	36	1mA	100mA	0.5%	SOT-23, TO-92, SOT-89, SOP-8
GM1431B	2.5	36	1mA	100mA	1.0%	SOT-23, TO-92, SOT-89, SOP-8

## Voltage Regulators

### Feature:

- Output voltage range from 5V~27V with  $V_{in} = \max = 35V$
- Output current up to 1.5A
- Low dropout voltage = 500mV (max)
- Over current and voltage protection
- Short circuit protection
- Thermal shut down
- ON/ OFF function for sleep mode
- Output transistor safe area protection

### Application :

LCD Monitor / TV, Consumer Product, High Efficiency Linear Post- Regulator for Switching Power Supply, Bias Supply for Analog Circuits, Audio System, Instruments.

Part No.	Output Current ( $I_o$ )	Dropout Voltage Typ. (V)	Output Voltage (V)	Max. $V_N$ (V)	Package
GM78L00	100mA	1.7	5, 6, 8, 9, 10, 12, 15, 18, 24	35-40	TO-92, SOT-89, SOP-8
GM7800	1.5A	2.0V @ 1A	5, 6, 8, 9, 10, 12, 24, 27	35-40	TO-252-2, TO-263-2, TO-220

## Low Dropout Voltage Regulators

### Feature:

- Fixed or adjustable output voltage
- Low dropout voltage- typical 1.15V
- Output current range from 1A to 5A
- Current limit protection
- Thermal shutdown protection

### Application :

Microprocessor Supply, Portable Consumer Electronic Devices, Desktop and Laptop PC, Post Regulators for SMPS, Battery Chargers, Telecommunication, Printer Supplies.

Part No.	Output Current ( $I_o$ )	Quiescent Current (Typ.)	Dropout Voltage Typ. (V)	Output Voltage (V)	Max. $V_N$ (V)	Package
GM1117	1.0A	7mA	1.15@1A	Adj. 1.8, 2.5, 3.3, 5.0	7	SOT-223, TO-252, TO-263 TO-220
GM1117S	1.0A	7mA	1.15@1A	Adj. 1.8, 2.5, 3.3, 5.0	15	SOT-223, TO-252, TO-263 TO-220
GM6603	3.0A	5mA	1.15@3A	Adj. 1.8, 2.5, 3.3, 5.0	7	TO-252, TO-263, TO-220
GM6605	5.0A	5mA	1.15@5A	Adj. 1.8, 2.5, 3.3, 5.0	7	TO-263, TO-220

## Ultra Low Dropout Voltage Regulators

### Features:

- High output current capability up to 5A
- Ultra Low - Dropout voltage : 350mA at full load
- Fixed and adjustable output voltage
- Accurate 1% guarantee tolerance
- TTL CMOS compatible enable pin
- Current limiting and thermal shut down
- Fast transient response
- Reversed- battery protection
- Error flag pin indicates output out-of-regulation

### Application:

Microprocessor Supply, VGA Cards, High Efficiency Linear Power Supplies, Post Regulators for Switching Power Supplies, Battery Powered Equipment, High Efficiency "Green" Computer, Low - Voltage Micro Controllers

Part No.	Output Current ( $I_o$ )	Quiescent Current (IQ Typ.) (Supply)	Dropout Voltage Typ. (V)	Output Voltage (V)	Max. $V_N$ (V)	Shutdown Control	On/ Off Pin	Error Flag	Package
GM66102	1A	8mA	0.35	1.5, 1.8, 2.5, 3.0, 3.3, 5.0, 12	26				SOT-223, TO-252, TO-263, TO-220
GM66150	1.5A	8mA	0.35	1.5, 1.8, 2.5, 3.0, 3.3, 5.0, 12	26				SOT-223, TO-252, TO-263, TO-220
GM66151	1.5A	8mA	0.35	1.5, 1.8, 2.5, 3.0, 3.3, 5.0, 12	26	10 $\mu$ A	✓	✓	TO-263-5, TO-220-5
GM66152	1.5A	8mA	Adj.	Adj.	26	10 $\mu$ A	✓	✓	TO-263-5, TO-220-5
GM66153	1.5A	8mA	Adj.	Adj.	26	10 $\mu$ A		✓	TO-263-5, TO-220-5
GM66300	3A			1.8, 2.5, 3.3	20	10 $\mu$ A			TO-220, TO-263
GM66301	3A		0.35	1.8, 2.5	20	10 $\mu$ A	✓	✓	TO-220-5, TO-263-5
GM66302	3A		Adj.	Adj.	20	10 $\mu$ A	✓		TO-220-5, TO-263-5
GM66500	5A		0.4	1.8, 2.5, 3.3, 5.0	20	10 $\mu$ A			TO-220, TO-263
GM66501	5A		0.4	1.8, 2.5, 3.3, 5.0	20	10 $\mu$ A	✓	✓	TO-220-5, TO-263-5
GM78R00	1A	8mA	0.5 Max.	3.3, 5.0, 9.0, 12	26			✓	TO-220-4FPAB
GM78R00A	1A	10mA(Max)	0.5 Max.	3.3, 5.0, 9.0, 12	35			✓	TO-220-4FPAB

## Ultra Low Noise CMOS LDOs

### Features:

- Fixed or adjustable output voltage with 1%, 2% tolerance
- Output current range from 150mA to 300mA with maximum  $V_{in} = 20V$
- Low quiescent and ultra low dropout voltage
- Current limit and thermal shutdown
- Reverse battery protection
- Logic controlled enable/ disable
- Extremely tight load and line regulation
- Stable with minimum external components

### Application:

Mobile Phone, WLAN Card, Notebook and Palm top Computers, Consumer Portable Devices, SMPS Post- Regulators, High Efficiency Linear Power Supplies, LCD Monitor/ LCM, Battery Powered Equipment

Part No.	Output Current ( $I_o$ )	Voltage Tolerance (Max)	Dropout Voltage Typ. (V)	Output Voltage (V)	Quiescent Current (IQ Typ.) (Supply)	Max. $V_N$ (V)	On/ Off Pin	Package
GM6155	150mA	$\pm 1\%$	0.165	Adj. 2.5, 2.7, 2.8, 2.9, 3.0, 3.3, 3.6, 4.0, 4.2, 5.0	0.01 $\mu$ A	16	✓	SOT-25
GM6156	150mA	$\pm 1\%$	0.165	Adj. 2.5, 2.7, 2.8, 3.0, 3.3, 3.6, 4.0, 5.0	0.01 $\mu$ A	16	✓	SOT-25
GM6250	250mA	$\pm 2\%$	0.4	1.5, 1.8, 2.5, 2.7, 2.8, 2.85, 3.0, 3.2, 3.3, 3.5, 3.6, 4.0, 4.4, 4.5, 5.0		12		SOT-23, SOT-89, TO-92
GM6251	250mA	$\pm 2\%$	0.4	1.8, 2.5, 2.7, 2.8, 3.0, 3.2, 3.3, 3.5, 3.6, 4.0, 4.4, 4.5, 5.0		12		SOT-25, SOT-89, TO-92
GM6350	300mA	$\pm 2\%$	0.6	1.5, 1.8, 2.5, 3.0, 3.3, 5.0		6.5		SOT-89