Replacement of
XC62GR/GP-XX

150 mA Low Dropout Regulator

MIK62GR/GP-XX

Preliminary July 2001

Description

The MIK62G series is a group of positive voltage output, three-pin regulators, that provide a high current even when the input/output voltage differential is small. Low power consumption and high accuracy is achieved through CMOS and programmable fuse technologies. Output voltage: 2.0V to 6.0V. The MIK62G consists of a high-precision voltage reference, an error correction circuit, and a current limited output driver. Transient response to load variations have improved in comparison to the existing series. With good transient responses, output remains stable even during load changes. The CE input enables the output to be turned off, resulting in reduced power consumption. SOT-25 (150mW) and SOT-89-5 (500mW) packages are available. With regards to the CE function, as well as the positive logic MIK62GR series, a negative logic MIK62GP series is also available.

Features

- Maximum output current 150mA
- Highly accurate: Output voltage +/- 2%
- Low power consumption.
- Small input/output differential: 0.38V at 160mA

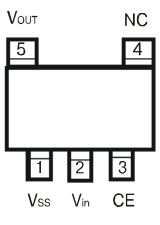
Applications

- Battery-powered Equipment
- Voltage supplies for cellular phones
- Portable Cameras and Video Recorders
- Reference Voltage Sources
- Palmtops

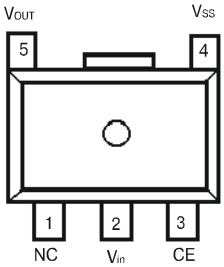
Absolute Maximum Ratings

Symbol	Parameter		Maximum	Units
Vin	Input Voltage		12	V
Iout	Output Current		500	mA
Vce	CE Input Voltage		Vss-0.3~Vin+0.3	
Vout	Output Voltage		Vss-0.3~Vin+0.3	V
Pd	Continuous Total Power Dissipation	SOT-25 SOT-89-5	150 500	mW
Topr	Operating Ambient Temperature		-30 ~ +80	°C
Tstg	Storage temperature		-40 ~ +125	°C

Pin Configuration



SOT-25



SOT-89-5

Functions

Series	CE	Voltage Output
MIK62GR-XX	H	ON
	L	OFF
MIK62GP-XX	H	OFF
	L	ON

Replacement of
XC62GR/GP-XX

150 mA Low Dropout Regulator

MIK62GR/GP-XX

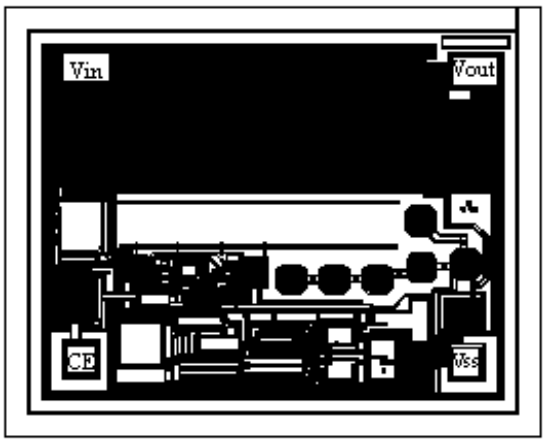
Preliminary July 2001

Electrical Characteristics

(at T_a = 25°C, V_{IN} = Vout(nominal)+1V; unless otherwise noted)

Parameter	Conditions	Min	Typ	Max	Units
Output Voltage Accuracy	Io =40mA	-2%		+2%	V
Line Regulation ΔVout/ΔVinVout	Io=40mA, (Vout+1V)<Vin<10V		0.2	0.3	%/V
Load Regulation	Vin=Vout+1V, 1mA ≤ Io ≤ 80mA Cout=1μF			0,04	%/mA
Maximum Output Current		150			mA
Current Limit			1000		mA
Ground Pin Current 1 Ground Pin Current 2	Vin=Vce=Vout+1V Vin=Vout+1V Vce=Vss			19 0,1	μA
CE Input Voltage "High"		1,5			V
CE Input Voltage "Low"				0,25	V
CE Input Current "High"	Vce=Vin			1	μkA
CE Input Current "Low"	Vce=Vss	-0,2	-0,05	0	μkA
Dropout Voltage	Io=80mA Io=160mA		200 380	395 770	mV
Output Voltage Temperature Characteristics	Iout=10mA -30≤Topr≤80°		±100		ppm/°C

Pad location



Chip size: 1.48 * 1.18 mm

Pad Location Coordinates (the center of pads)

Pad Name	Coordinates (μm)	
	X	Y
Vout	1235	966
Vce	172	173
Vin	159,5	977
Vss	1235	165.5