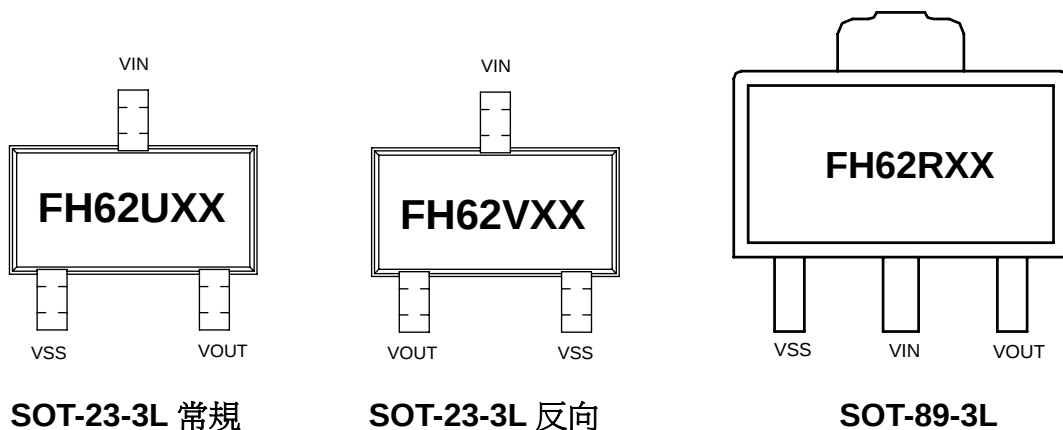


DESCRIPTION & FEATURES 概述及特點	
The FH62 series is a group of positive voltage output, three-pin regulators. That provide a high current even when the input/output voltage differential is small. Low power consumption and high accuracy is achieved through CMOS and laser trimming technologies. The FH62 consist 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. SOT-23-3L and SOT-89 packages are available.	FH62 系列是一組具有正向輸出電壓功能的三端穩壓器，在輸入輸出壓差較小時也能提供出高電流。通過 CMOS 工藝及鐳射剪切技術使產品具有低功耗及高精度的優點。FH62 由一個高精度的電壓基準源、一個可確認錯誤的回路、一個可限制輸出電流的驅動器組成。 現有系列產品的暫態回應負載變化與之前相比較已經改良。 現有封裝類型 SOT-23-3L 和 SOT-89
- Maximum output current : 250mA - Output Voltage Range: 2.0V ~ 5.0V in 0.1V increments (1.5V ~ 1.9V for custom products) - Highly Accurate: Output voltage $\pm 2\%$ ($\pm 1\%$ for semi-custom products) - Low Power Consumption: Typ. 2.0μA @ VOUT=5.0V - Output Voltage Temperature Characteristics: Typ. ± 100ppm/$^{\circ}$C - Input Stability : Typ. 0.2%/V - Small Input-Output Differential: Iout = 100mA @ Vout = 5.0V with a 0.12V differential. - Ultra Small Packages : SOT-23 (150mW) mini-mold, SOT-89 (500mW) mini-power mold	- 最大負載電流：250 mA - 輸出電壓範圍： 2.0V~5.0V,每 0.1V 一個間隔。 (1.5V~1.9V 為可為專用客戶定做) - 高精度：輸出電壓精度為$\pm 2\%$ ($\pm 1\%$精度可為專用半導體客戶定做) - 低功耗 Typ. 2.0μA @ VOUT=5.0V - 輸出電壓溫度特性： Typ. ± 100ppm/$^{\circ}$C - 低壓差： Iout = 100mA @ Vout = 5.0V with a 0.12V differential. - 極小型封裝：SOT-23 (150mW) mini-mold, OT-89 (500mW) mini-power mold
Applications 應用	
- MP3&U disc Regulator - Battery Powered Equipment - Palmtops MP3 U disc - Portable Cameras and Video Recorders - Reference Voltage Sources	- MP3&U 盤穩壓器 - 電池充電設備 - 掌上電腦 MP3 U 盤 - 可攜式相機及錄影機 - 基準電壓源

Pin Configuration 引腳排列圖



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Positive Voltage RegulatorZ 正向電源穩壓器

FH62

管腳名稱及定義				功能描述
符號	SOT-23-3L 常規	SOT-23-3L 反向	SOT-89-3L	
VSS	1	2	1	Contact to the GND 接地
VIN	3	3	2	Input Pin 輸入端
VOU	2	1	3	Output Pin 輸出端

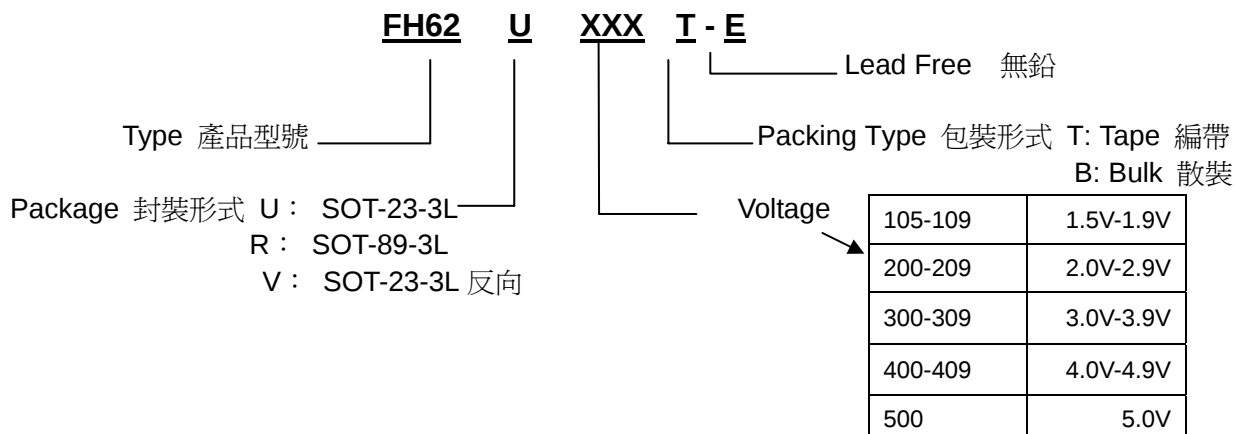
Ordering Information 訂購資訊				
Package 封裝類型	Temperature Range 溫度範圍	Part Number 產品型號	Marking ID 打標	Packing Type 包裝類型
SOT-23-3L常規	-30°C ~ 80°C	FH62U105T-E	105+ Week No.	T
		FH62U106T-E	106+ Week No.	T
		FH62U107T-E	107+ Week No.	T
		FH62U108T-E	108+ Week No.	T
		FH62U109T-E	109+ Week No.	T
		FH62U200T-E	200+ Week No.	T
		FH62U201T-E	201+ Week No.	T
		FH62U202T-E	202+ Week No.	T
		FH62U203T-E	203+ Week No.	T
		FH62U204T-E	204+ Week No.	T
		FH62U205T-E	205+ Week No.	T
		FH62U206T-E	206+ Week No.	T
		FH62U207T-E	207+ Week No.	T
		FH62U208T-E	208+ Week No.	T
		FH62U209T-E	209+ Week No.	T
		FH62U300T-E	300+ Week No.	T
		FH62U301T-E	301+ Week No.	T
		FH62U302T-E	302+ Week No.	T
		FH62U303T-E	303+ Week No.	T
		FH62U304T-E	304+ Week No.	T
		FH62U305T-E	305+ Week No.	T
		FH62U306T-E	306+ Week No.	T
		FH62U307T-E	307+ Week No.	T
		FH62U308T-E	308+ Week No.	T
		FH62U309T-E	309+ Week No.	T
		FH62U400T-E	400+ Week No.	T
		FH62U401T-E	401+ Week No.	T
		FH62U402T-E	402+ Week No.	T
		FH62U403T-E	403+ Week No.	T
		FH62U404T-E	404+ Week No.	T
		FH62U405T-E	405+ Week No.	T
		FH62U406T-E	406+ Week No.	T
		FH62U407T-E	407+ Week No.	T
		FH62U408T-E	408+ Week No.	T
		FH62U409T-E	409+ Week No.	T
		FH62U500T-E	500+ Week NO.	T
SOT-23-3L反向		FH62V30T-E	V30+ Week No.	T

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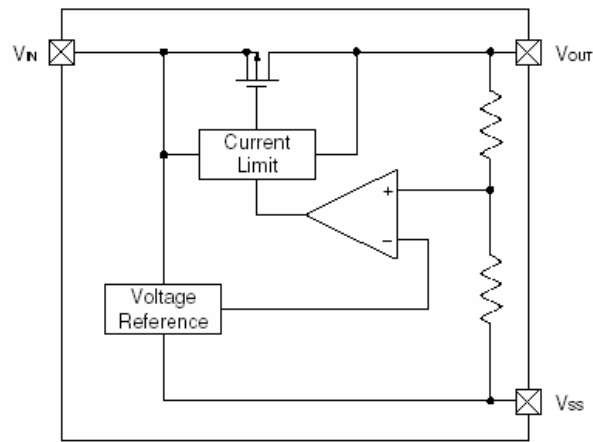
SOT-89-3L		FH62R105T-E	105+ Week No.	T
		FH62R106T-E	106+ Week No.	T
		FH62R107T-E	107+ Week No.	T
		FH62R108T-E	108+ Week No.	T
		FH62R109T-E	109+ Week No.	T
		FH62R200T-E	200+ Week No.	T
	-30°C ~ 80°C	FH62R201T-E	201+ Week No.	T
		FH62R202T-E	202+ Week No.	T
		FH62R203T-E	203+ Week No.	T
		FH62R204T-E	204+ Week No.	T
		FH62R205T-E	205+ Week No.	T
		FH62R206T-E	206+ Week No.	T
		FH62R207T-E	207+ Week No.	T
		FH62R208T-E	208+ Week No.	T
		FH62R209T-E	209+ Week No.	T
		FH62R300T-E	300+ Week No.	T
		FH62R301T-E	301+ Week No.	T
		FH62R302T-E	302+ Week No.	T
		FH62R303T-E	303+ Week No.	T
		FH62R304T-E	304+ Week No.	T
		FH62R305T-E	305+ Week No.	T
		FH62R306T-E	306+ Week No.	T
		FH62R307T-E	307+ Week No.	T
		FH62R308T-E	308+ Week No.	T
		FH62R309T-E	309+ Week No.	T
		FH62R400T-E	400+ Week No.	T
		FH62R401T-E	401+ Week No.	T
		FH62R402T-E	402+ Week No.	T
		FH62R403T-E	403+ Week No.	T
		FH62R404T-E	404+ Week No.	T
		FH62R405T-E	405+ Week No.	T
		FH62R406T-E	406+ Week No.	T
		FH62R407T-E	407+ Week No.	T
		FH62R408T-E	408+ Week No.	T
		FH62R409T-E	409+ Week No.	T
		FH62R500T-E	500+ Week No.	T



Positive Voltage RegulatorZ 正向電源穩壓器

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BLOCK DIAGRAM 功能結構圖

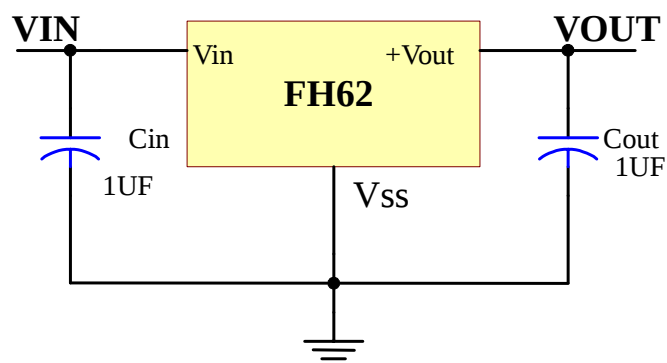


MAXIMUM RATINGS ($T_a=25^{\circ}\text{C}$) 最大額定值 (Note 1)

Characteristic 特性參數	Symbol 符號	Rating 額定值		Unit 單位
		Min 最小	Max 最大	
Input Voltage 輸入電壓	V_{IN}	-	10	V
Output Current 輸出電流	I_{OUT}	-	250	mA
Output Voltage 輸出電壓	V_{out}	1.5	5.0	V
Continuous Total Power Dissipation 持續總功耗	SOT-23	Pd	150	mW
	SOT-89		500	
Operating Ambient Temperature 操作環境溫度	T_{opr}	-40	85	$^{\circ}\text{C}$
Storage Temperature Range 儲存溫度	T_{stg}	-40	125	$^{\circ}\text{C}$

Note 1: Exceeding these ratings could cause damage to the device. All voltages are with respect to Ground. Currents are positive into, negative out of the specified terminal.

Typical Applications 典型應用圖例



ELECTRICAL CHARACTERISTICS 電特性

Unless otherwise specified, $V_{IN} = V_{OUT} + 1V$, $V_{IN(max)} = 10V$, $C_{in}=1\mu F$, $C_{out}=1\mu F$, $T_J = 25^\circ C$.
如無特殊說明， $V_{IN(min)} = V_{OUT} + 1V$, $V_{IN(max)} = 10V$, $C_{in}=1\mu F$, $C_{out}=1\mu F$ 溫度為 $25^\circ C$ 。

Parameter 參數	Symbol 符號	Test Conditions 測試條件	Min. 最小 值	Typ. 典型值	Max. 最大 值	Unit 單位
Output Voltage 參考電壓	V_{OUT}	$I_O = 40mA$, $V_{IN} = V_{OUT} + 1V$	-2		+2	%
Maximum Output Current	$I_{out(max)}$	$V_{IN}=3.0V$, for $V_{OUT} \geq 1.8V$	100		-	mA
		$V_{IN}=4.0V$, for $V_{OUT} \geq 2.7V$	150		-	
		$V_{IN}=5.0V$, for $V_{OUT} \geq 3.6V$	200		-	
		$V_{IN}=6.0V$, for $V_{OUT} \geq 4.5V$	250		-	
Load Stability	ΔV_{OUT}	$V_{IN} = V_{OUT} + 1V$ $1mA \leq I_{OUT} \leq 100mA$		45	90	mV
Input-Output Voltage Differential	V_{dif1}	$I_{OUT}=60mA$, for $V_{OUT} \geq 1.8V$		180	360	mV
		$I_{OUT}=80mA$, for $V_{OUT} \geq 2.7V$				
		$I_{OUT}=100mA$, for $V_{OUT} \geq 3.6V$		170	330	mV
		$I_{OUT}=100mA$, for $V_{OUT} \geq 4.5V$		120	300	mV
	V_{dif2}	$I_{OUT}=120mA$, for $V_{OUT} \geq 1.8V$		400	700	mV
		$I_{OUT}=160mA$, for $V_{OUT} \geq 2.7V$				
		$I_{OUT}=200mA$, for $V_{OUT} \geq 3.6V$		400	630	mV
		$I_{OUT}=200mA$, for $V_{OUT} \geq 4.5V$		380	600	mV
Supply Current	I_{SS}	$V_{IN} = V_{OUT} + 1V$		2.0	4.5	μA
Input Stability	$\frac{\Delta V_{OUT}}{\Delta V_{IN} * V_{OUT}}$	$I_{OUT}=40mA$ $V_{OUT} + 1V \leq V_{IN} \leq 10V$		0.2	0.3	%/V
Input Voltage	V_{IN}				10	V
Output Voltage Temperature Characteristics	$\frac{\Delta V_{OUT}}{\Delta T_{opr} * V_{OUT}}$	$I_{OUT}=40mA$ $-40^\circ C \leq T_{opr} \leq 85^\circ C$		± 100		Ppm/ $^\circ C$