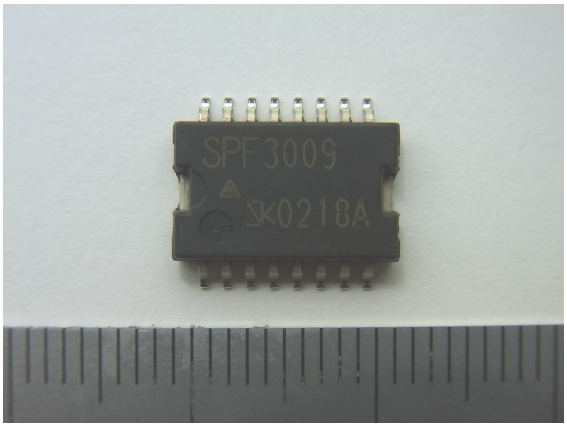
Surface mount type Dual output system series regulator SPF3009

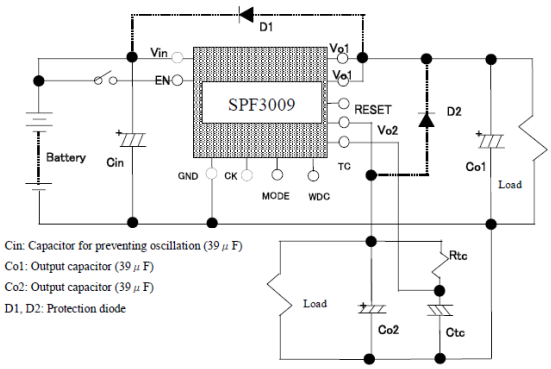
SPF3009 is dual output series regulator mounting the functions needed for automotive ECU. It incorporates dual output (5V/0.4A, 3.3V/0.2A) power elements and has watch dog function, enable function and power ON Reset control function. Also OCP and TSD are incorporated.



Appearance

Features

1. Composed of single input and dual output
   (Ch1: 5V/0.4A, Ch2: 3.3V/0.2A)
   Guaranteed ±2% accuracy of Ch1 output voltage
2. Built-in Power ON Reset function possible to set power on reset time by external element (Resistor: Rtc/ Capacitor: Ctc)
3. Built-in watch dog function
4. Enable function of low consumption current at OFF
5. Built-in drooping type OCP
6. Built-in TSD circuit (only Ch1)



Typical connection diagram

Absolute maximum ratings (Ta=25℃)

Characteristics		Symbol	Ratings	Unit	Remarks
DC Input Voltage		Vin	-13～35	V	Reverse connection 1min (MAX)
			40		1<400mS
Output Control Pin Voltage		EN	-0.3～35	V	
			40		1<400mS
Output Current	CH1	Io1	0.4	A	
	CH2	Io2	0.2	A	
Junction Temperature		Tj	-40～150	℃	
Storage Temperature		Tstg	-40～150	℃	
Thermal Resistance (Junction to Case)		θ j-c	4.1	℃/W	With infinite heat sink
Thermal Resistance (Junction to Ambient)		θ j-a	38	℃/W	*1

*1 Mount with glass epoxy resin + Cu board (size 5.0×7.4cm, t: glass epoxy=1.6mm, Cu=18μm)

Electrical characteristics (Unless otherwise specified: Tj=-30~125℃, V_{IN}=14V, Io1=0A, Io2=0A, EN=5V)

Characteristics		Symbol	Ratings			Unit	Test condition
			MIN	TYP	MAX		
Input Voltage		Vin	Vo1+Vdif1		35	V	
Output Control Voltage	CH1	Vo1	4.90	5.00	5.10	V	Vin=Vo1+Vdif1~18V Io1=0~0.4A, Tj=-30~125℃
	CH1	Vo1	4.85	5.00	5.15		Vin=Vo1+Vdif1~18V Io1=0~0.4A, Tj=-40~150℃
	CH2	Vo2	3.15	3.30	3.45		Vin=Vo2+Vdif1+Vdif2~18V, Io1=0~0.2A
Dropout Voltage	CH1	Vdif11			0.5	V	Io1=0.4A
	CH2	Vdif2			0.5		Io2=0.2A
Quiescent Current		Iq		10	50	μA	Vin=16V, EN=0V
				50	250		Vin=35V, EN=0V
				5	10	mA	
GND Current		IGND		70	100	mA	Io1=Io2=0.2A
Overcurrent Protection Starting Current	CH1	Is11	0.402		1.80	A	Vo1=4.5V
	CH2	Is21	0.201		0.90		Vo2=2.8V
EN Output Control Voltage		VENth	1.0		3.5	V	Tj=-40~125℃
			0.9		3.5		Tj=-40~150℃
EN Output Control Current	ON	IENH1			70	μA	EN=6.4V, Tj=-40~125℃
		IENH2			40		EN=3.5lV, Tj=-40~125℃
	OFF	IENL	-1.0		1.0		EN=0V, Tj=-40~125℃
RESET Threshold Voltage	CH1	Vo1thH			Vo1×0.97	V	Vrs, Vfail>4.5V
		Vo1thL	4.50			V	Vrs, Vfail<0.8V
	CH2	Vo2thH			Vo2×0.985	V	Vrs>3.0V
		Vo2thL	3.00			V	Vrs<0.8V
Power ON Reset Delay Time		tdly	0.76×Rtc×Ctc	0.79×Rtc×Ctc	0.82×Rtc×Ctc	S	Minimum delay time: 6mS
W/D Pulse		twd	0.53×Rtc×Ctc	0.56×Rtc×Ctc	0.59×Rtc×Ctc	S	Minimum W/D time: 4mS
W/D Pulse Time		twdp	0.05×Rtc×Ctc	0.07×Rtc×Ctc	0.09×Rtc×Ctc	S	Minimum W/D pulse time: 400μS

ENTEGRECİ

Bu belge www.entegreci.com üzerinden sunulmaktadır.

Elektronik komponent tedarikinde Entegreci

Entegreci, Eskişehir merkezli, Türkiye geneline satış yapan bir elektronik komponent mağazasıdır. Entegreler (IC), mikrodenetleyiciler, transistörler, diyotlar, pasif elemanlar, konnektörler, modüller ve geliştirme kartları tek adetten seri üretim adetlerine kadar satılır. Ürün sayfalarında güncel stok durumunu, fiyatı ve datasheet bağlantısını bulabilirsiniz.

Parça koduyla arama

Üretici parça numarasını yazın; stok ve fiyatı hemen görün.

www.entegreci.com

Ürün kategorileri

Entegreden kapasitöre tüm elektronik komponent kategorileri.

Kategorilere göz atın

Üreticiler

Aradığınız üreticinin ürünlerini tek sayfada inceleyin.

Üreticileri görün

Toplu alım ve teklif

Listede olmayan ya da yüksek adetli parçalar için teklif isteyin.

Teklif isteyin

www.entegreci.com | **destek@entegreci.com** | **0850 305 90 34**

Entegreci is an online electronic components store based in Türkiye. Search by manufacturer part number to see stock, prices and datasheets for integrated circuits, microcontrollers, transistors, passive components and connectors, or request a quote for parts that are not listed.

Bu sayfa Entegreci tarafından eklenmiştir. Belgenin önceki sayfaları asıl yayıncısına aittir ve içeriği değiştirilmemiştir; en güncel sürüm için belgenin yayıncısına başvurun.