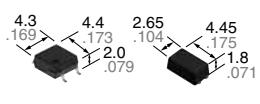
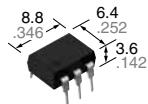


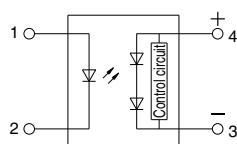
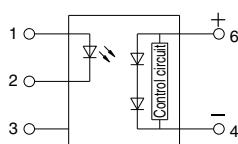


Photovoltaic MOSFET drivers of wide variation

Photovoltaic MOSFET Driver (APV1, 2)



mm inch



RoHS compliant

FEATURES

1. High-speed switching

Since release time is Typ. 0.1 ms, the MOSFET can be turned off quickly in a urgent situation.

2. High insulation

DIP type: 5,000 Vrms

SOP type: 2,500 Vrms

SSOP type: 1,500 Vrms

3. Extensive product lineup

Products include SSOP, SOP4-pin and DIP6-pin.

TYPICAL APPLICATIONS

- Power supply (Vcc) for electronic circuits
- Driving MOSFET

TYPES

Output rating		Package	Part No.				Packing quantity				
Drop-out voltage (Typ.)	Short circuit current (Typ.)		Through hole terminal		Surface-mount terminal						
			Tube packing style	Tube packing style	Tape and reel packing style						
8.7V	14µA	DIP6-pin	APV1122	APV1122A	APV1122AX	APV1122AZ	1 tube contains 50 pcs. 1 batch contains 500 pcs.	1,000 pcs.			
8.7V	14µA	SOP4-pin* ³	—	APV1121S	APV1121SX	APV1121SZ	1 tube contains 100 pcs. 1 batch contains 2,000 pcs.				
8.2V	8µA		—	APV2121S	APV2121SX	APV2121SZ	—				
8.2V	8µA	SSOP* ⁴	—	—	APV2111VY	APV2111VW	—	3,500 pcs.			

Notes: *1 SOP type is picked from 1/2-pin side, SSOP type is picked from 1/4-pin side.

*2 SOP type is picked from 3/4-pin side, SSOP type is picked from 2/3-pin side.

*3 For space reasons, the two initial letters of the part number "AP", package (SOP) indicator "S" and the packing style indicator "X" or "Z" are not marked on the device. (Ex. the label for product number APV1121SX is V1121).

*4 Tape and reel package is the standard packing style. Packing quantity of 1,000 pieces is possible. Please contact our sales office.

For space reasons, the two initial letters of the part number "AP", package (SSOP) indicator "V" and the packing style are not marked on the device. (Ex. the label for product number APV2111VY is V2111).

RATING

1. Absolute maximum ratings (Ambient temperature: 25°C 77°F)

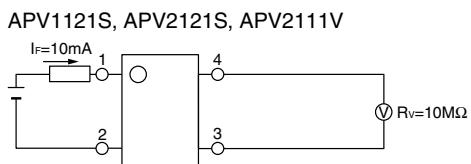
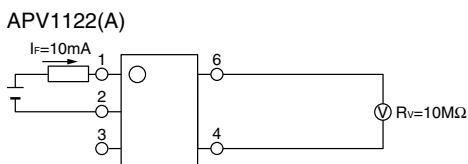
Item	Symbol	APV1122(A)	APV1121S	APV2121S	APV2111V	Remarks
Input	LED forward current	I _F		50mA		
	LED reverse voltage	V _R		5V		
	Peak forward current	I _{FP}		1A		f = 100 Hz, Duty Ratio = 0.1%
	Power dissipation	P _{in}		75mW		
I/O isolation voltage	V _{iso}	5,000Vrms	2,500Vrms	2,500Vrms	1,500Vrms	
Ambient temperature	Operating	T _{opr}	−40 to +85°C −40 to +185°F			(Non-icing at low temperatures)
	Storage	T _{stg}	−40 to +100°C −40 to +212°F			

Photovoltaic MOSFET Driver

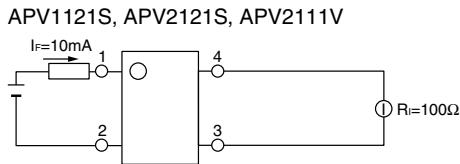
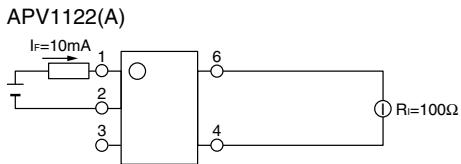
2. Electrical characteristics (Ambient temperature: 25°C 77°F)

Item		Symbol	APV1122(A)	APV1121S	APV2121S	APV2111V	Condition
Input	LED operate current	I_{Fon}	0.6mA		0.85mA		$V_{OC} = 5V$
	Maximum		3mA				
Input	LED turn off current	I_{Foff}	0.2mA		0.75mA		$V_{OC} = 1V$
	Typical		0.5mA		1.15V		
Input	LED dropout voltage	V_F	1.15V		1.5V		$I_F = 10mA$
	Maximum						
Output	Drop-out voltage*	V_{OC}	6V		5V		$I_F = 10mA$
	Typical		8.7V		8.2V		
Output	Short circuit current**	I_{SC}	5μA		3μA		$I_F = 10mA$
	Typical		14μA		8μA		
Transfer characteristics	Turn on time***	Typical	T_{on}	0.4ms	0.8ms		$I_F = 10mA, C_L = 1,000pF$
	Turn off time***	Typical	T_{off}	0.1ms			$I_F = 10mA, C_L = 1,000pF$
	I/O capacitance	C_{iso}	Typical	0.8pF		$V_S = 0V, f = 1MHz$	
			Maximum	1.5pF			
	Initial I/O isolation resistance	Minimum	R_{iso}	1,000MΩ		500V DC	

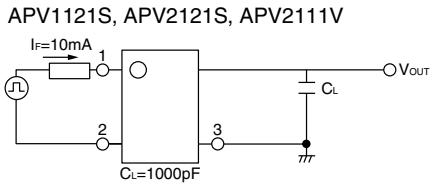
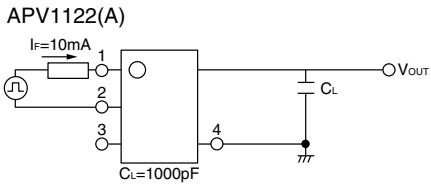
*Drop-out voltage measurement circuit



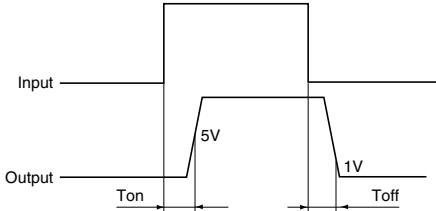
**Short circuit current measurement circuit



***Turn on/Turn off time measurement circuit



***Turn on time



3. Recommended operating conditions (Ambient temperature: 25°C 77°F)

Please use under recommended operating conditions to obtain expected characteristics.

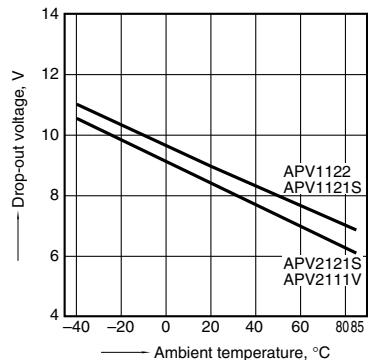
Item	Symbol	Min.	Max.	Unit
LED current	I_F	10	30	mA

■ These products are not designed for automotive use.

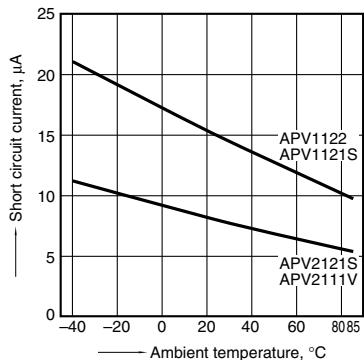
If you are considering to use these products for automotive applications, please contact your local Panasonic Corporation technical representative.

REFERENCE DATA

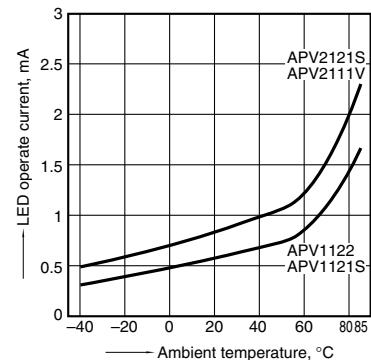
1. Drop-out voltage vs. ambient temperature characteristics
Input current: 10mA



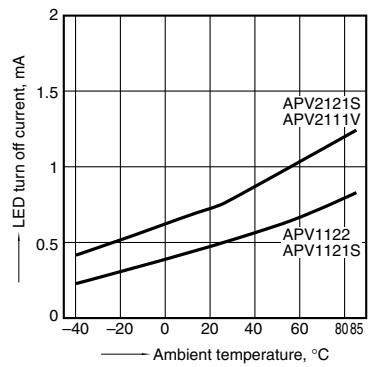
2. Short circuit current vs. ambient temperature characteristics
Input current: 10mA



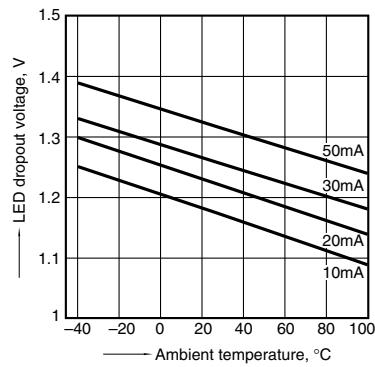
3. LED operate current vs. ambient temperature characteristics
Drop-out voltage: 5V



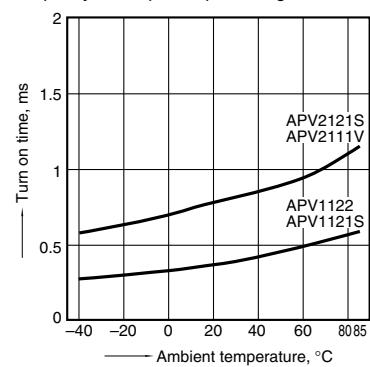
4. LED turn off current vs. ambient temperature characteristics
Drop-out voltage: 1V



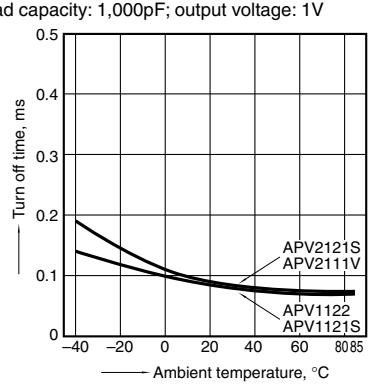
5. LED dropout voltage vs. ambient temperature characteristics
LED forward current: 10 to 50mA



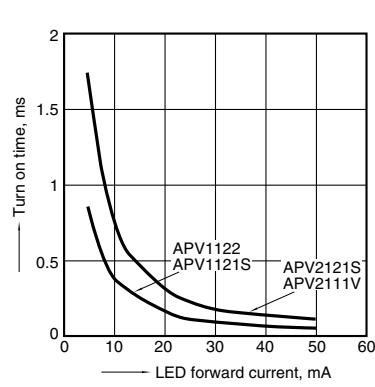
6. Turn on time vs. ambient temperature characteristics
LED forward current: 10mA
Load capacity: 1,000pF; output voltage: 5V



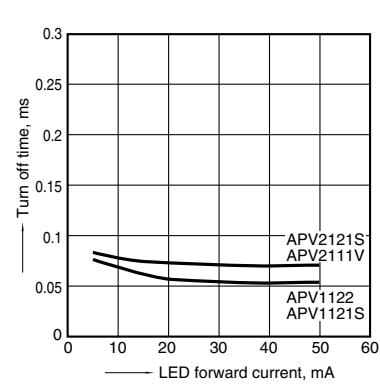
7. Turn off time vs. ambient temperature characteristics
LED forward current: 10mA
Load capacity: 1,000pF; output voltage: 1V



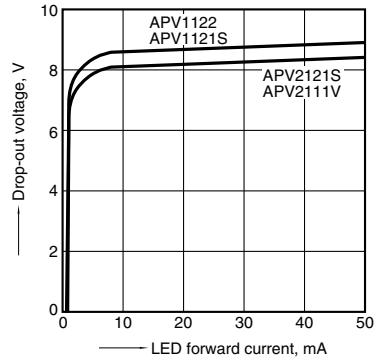
8. Turn on time vs. LED forward current characteristics
Load capacity: 1,000pF; output voltage: 5V



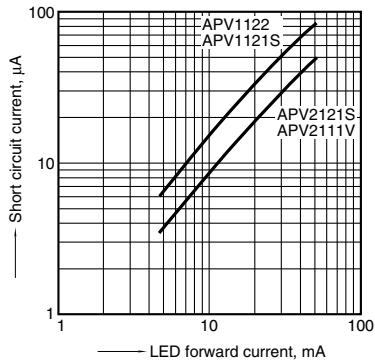
9. Turn off time vs. LED forward current characteristics
Load capacity: 1,000pF; output voltage: 1V



10. Drop-out voltage vs. LED forward current characteristics



11. Short circuit current vs. LED forward current characteristics



"PhotoMOS®", "PhotoMOS" and "PHOTOMOS" are registered trademarks of Panasonic Corporation.

*Recognized in Japan, the United States, all member states of European Union and other countries.

Please contact

Panasonic Corporation

Electromechanical Control Business Division

■ 1006, Oaza Kadoma, Kadomashi, Osaka 571-8506, Japan
industrial.panasonic.com/ac/e/

Panasonic®

©Panasonic Corporation 2017

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

Panasonic:

[APV1121SX](#) [APV1121SZ](#) [APV1122AX](#) [APV1122AZ](#) [APV2111VW](#) [APV2111VY](#) [APV2121S](#) [APV2121SX](#)
[APV2121SZ](#) [APV2111V](#)



Компания «ЭлектроПласт» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

Наши преимущества:

- Оперативные поставки широкого спектра электронных компонентов отечественного и импортного производства напрямую от производителей и с крупнейших мировых складов;
- Поставка более 17-ти миллионов наименований электронных компонентов;
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Техническая поддержка проекта, помошь в подборе аналогов, поставка прототипов;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- Лицензия ФСБ на осуществление работ с использованием сведений, составляющих государственную тайну;
- Поставка специализированных компонентов (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Aeroflex, Peregrine, Syfer, Eurofarad, Texas Instrument, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits, General Dynamics и др.);

Помимо этого, одним из направлений компании «ЭлектроПласт» является направление «Источники питания». Мы предлагаем Вам помошь Конструкторского отдела:

- Подбор оптимального решения, техническое обоснование при выборе компонента;
- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



Как с нами связаться

Телефон: 8 (812) 309 58 32 (многоканальный)

Факс: 8 (812) 320-02-42

Электронная почта: org@eplast1.ru

Адрес: 198099, г. Санкт-Петербург, ул. Калинина, дом 2, корпус 4, литера А.