Datasheet

2ch digital Isolator

Isolation voltage 2500Vrms
Bi-direction 2ch High Speed Digital Isolator

BM67421FV-C

General Description

The BM67421FV-C is a high-speed isolator IC. This IC features dielectric strength of 2500 Vrms between I/O. Maximum propagation delay time is 40ns.

Key Specification

- Supply voltage range: 4.5V to 5.5V
- Propagation delay: 40ns (Max)
- Operating temperature range: -40°Cto +125°C

Features

- Dielectric strength of 2500 Vrms between I/O
- Available with 5V signal transmissions
- Maximum propagation delay time of 40ns
- Built-in 2ch bi-directional propagation
- AEC-Q100 Qualified (Note1)

(*Note 1*:Grade1)

Package

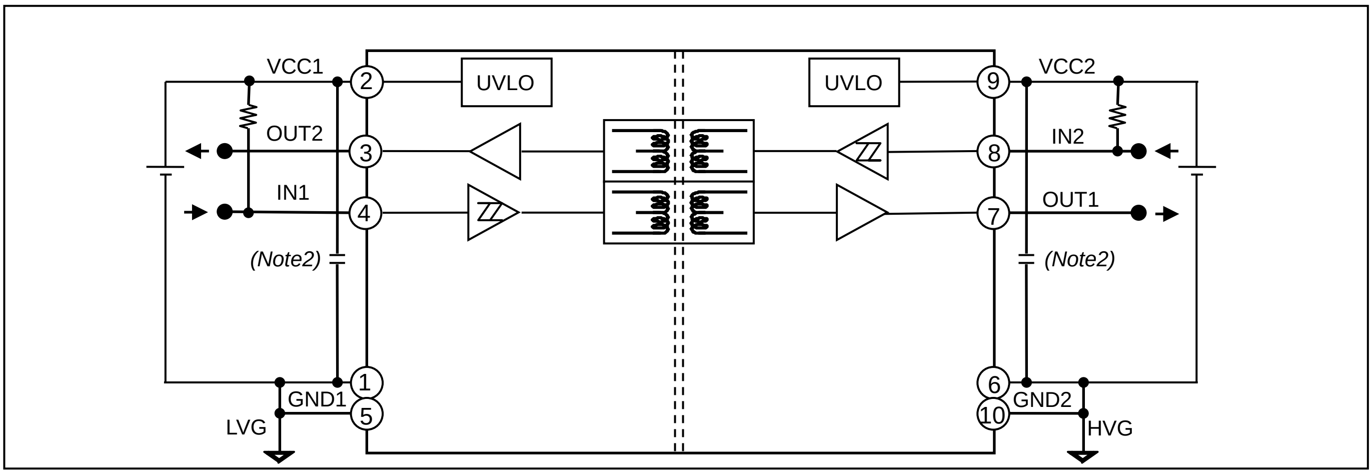
Package	W(Typ) x D(Typ) x H(Max)
SSOP-B10W	3.50mm x 10.2mm x 1.90mm

SSOP-B10W

Applications

- Propagation of logic signal within electric and hybrid vehicles
- Propagation of logic signal within industrial devices

Block diagram/typical application circuit



Note2 Please connect bypass capacitor (0.1µF or more) directly to the IC pin.

○Product structure : Silicon integrated circuit ○This product has no designed protection against radioactive rays.

Contents

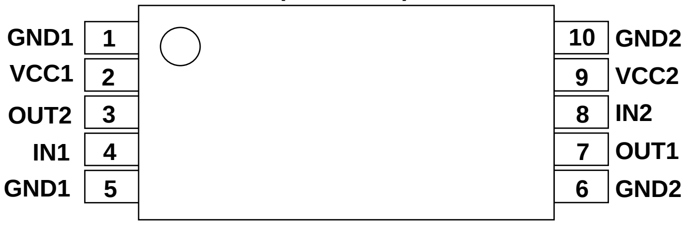
Recommended Range of External Constants

Pin Name	Symbol	Recommended Value			Unit
		Min	Typ	Max	
VCC1	C_{VCC1}	0.1 *(Note 3)*	1.0	-	µF
VCC2	C_{VCC2}	0.1 *(Note 3)*	1.0	-	µF

(Note 3) The temperature characteristic capacitance of the capacitor, DC bias characteristics, please be set so that it does not fall below the minimum value in consideration of the like.

Pin Configurations

(TOP VIEW)



Pin Description

No.	Pin Name	Function	No.	Pin Name	Function
1	GND1	Ground 1	10	GND2	Ground 2
2	VCC1	Power supply 1	9	VCC2	Power supply 2
3	OUT2	Output2	8	IN2	Input2
4	IN1	Input 1	7	OUT1	Output 1
5	GND1	Ground	6	GND2	Ground 2

Description of Operation

1) Input/Output logic
The input/output logic levels for the BM67421FV-C are as shown in the table below:

No.	VCC1	VCC2	IN1	IN2	OUT1	OUT2
1	UVLO	UVLO	X	X	H	H
2	UVLO	X	X	X	H	H
3	X	UVLO	X	X	H	H
4	ACTIVE	ACTIVE	L	L	L	L
5	ACTIVE	ACTIVE	L	H	L	H
6	ACTIVE	ACTIVE	H	L	H	L
7	ACTIVE	ACTIVE	H	H	H	H

Since pull up/pull down resistor has not been connected to IN1 and IN2 pins, it is necessary to connect external resistor to IN1 and IN2 pins depending on the application.

2)Output pin voltage
Logic levels for OUT1 and OUT2 pins are indicated in the truth table. However, it may be assumed that such logic levels disable the output circuit to fully turn ON at a low voltage when turning ON or OFF the power supply, thus putting the output pin into the high impedance state.

3) Power supply monitoring function
This IC has a built-in power supply monitoring function which monitors VCC2 (VCC1) from VCC1 (VCC2). It is assumed that an abnormal state occurs when VCC2 (VCC1) is controlled by the UVLO function for the period of time longer than the power supply monitoring time (40µsec (Typ)), and then OUT2 (OUT1) becomes"H". While power ON, after the control of the UVLO function is reset as well as VCC1 and VCC2 and the power monitoring time (40µsec (Typ)) has passed, the logic of IN1 and IN2 is reflected to both OUT1 and OUT2. Until the logic of IN1 and IN2 is reflected to OUT1 and OUT2, they remain "H".

4) Under Voltage Lock Out (UVLO) function masking time
This IC provides masking time for the UVLO function to prevent the function from malfunctioning with noises. The masking time is set to 2.5µsec (Typ). The masking time is applied when the UVLO function is ON. It is not applied when the UVLO function is OFF.

5) Under Voltage Lock Out (UVLO) function
This IC has a built-in UVLO function to prevent the IC from malfunctioning whenever the power supply voltage drops. It triggers the UVLO state when VCC1 pin and VCC2 pin are changed to 4.0V (Typ) or less and becomes in operational state when changed to 4.2V (Typ) or more.

・When VCC2 is 4.2V (Typ) or more and VCC1 pin voltage drops below 4.0V (Typ),the output logic of OUT2 pin becomes "H" and the output logic of OUT1 pin becomes "H" after the power supply monitoring time has passed.
・When VCC1 is 4.2V (Typ) or more and VCC2 pin voltage drops below 4.0V (Typ), the output logic of OUT1 pin becomes "H" and the output logic of OUT2 pin becomes "H" after the power supply monitoring time has passed.
・When VCC1 pin voltage is 4.2V (Typ) or more and VCC2 pin voltage changes from 4.0V (Typ) or less to 4.2V (Typ) or more, the output logic of OUT2 pin changes according to the input logic of input IN2 pin, and the output logic of OUT1 pin changes according to the input logic of input IN1 pin.
・When VCC2 pin voltage is 4.2V (Typ) or more and VCC2 pin voltage changes from 4.0V (Typ) or less to 4.2V (Typ) or more, the output logic of OUT1 pin changes according to the input logic of input IN1, and the output logic of OUT2 pin changes according to the input logic of input IN2 pin.

Timing Chart

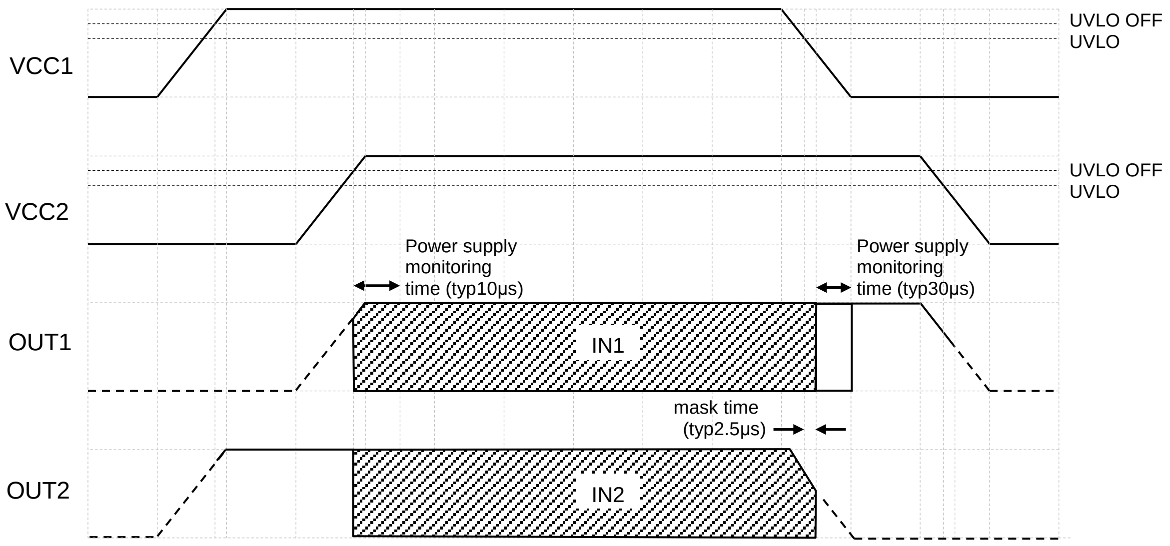


Figure 1. VCC1→VCC2 at Start, VCC1→VCC2 at Stop

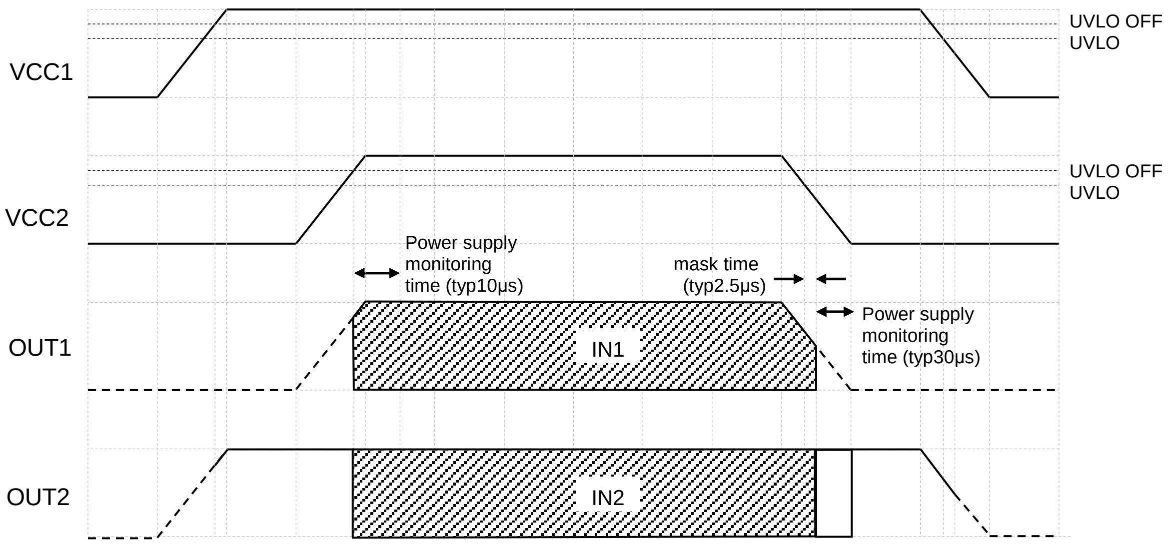


Figure 2. VCC1→VCC2 at Start, VCC2→VCC1 at Stop

Timing chart

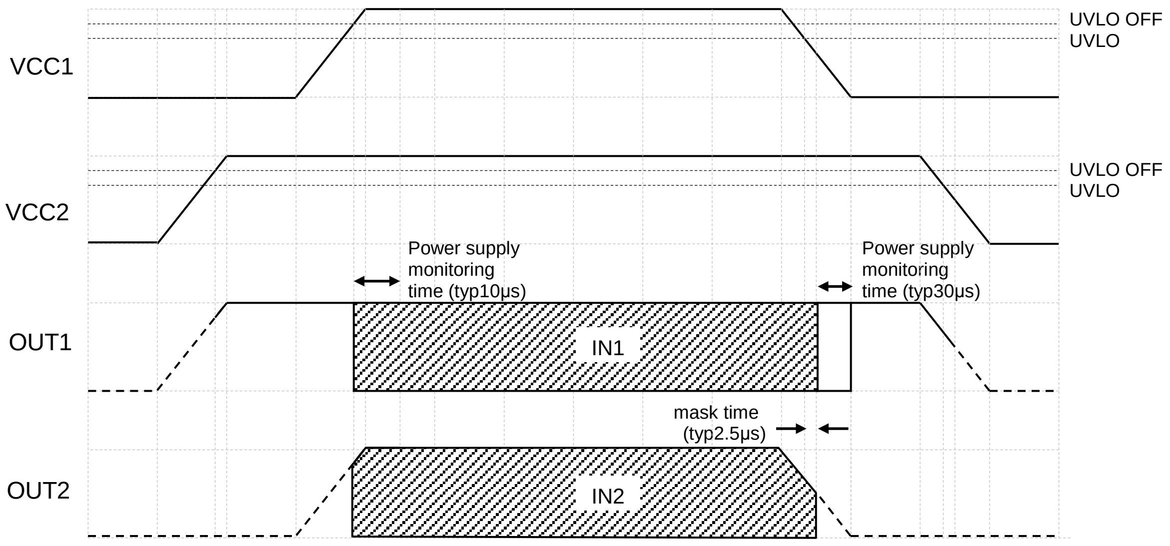


Figure 3. VCC2→VCC1 at Start, VCC1→VCC2 at Stop

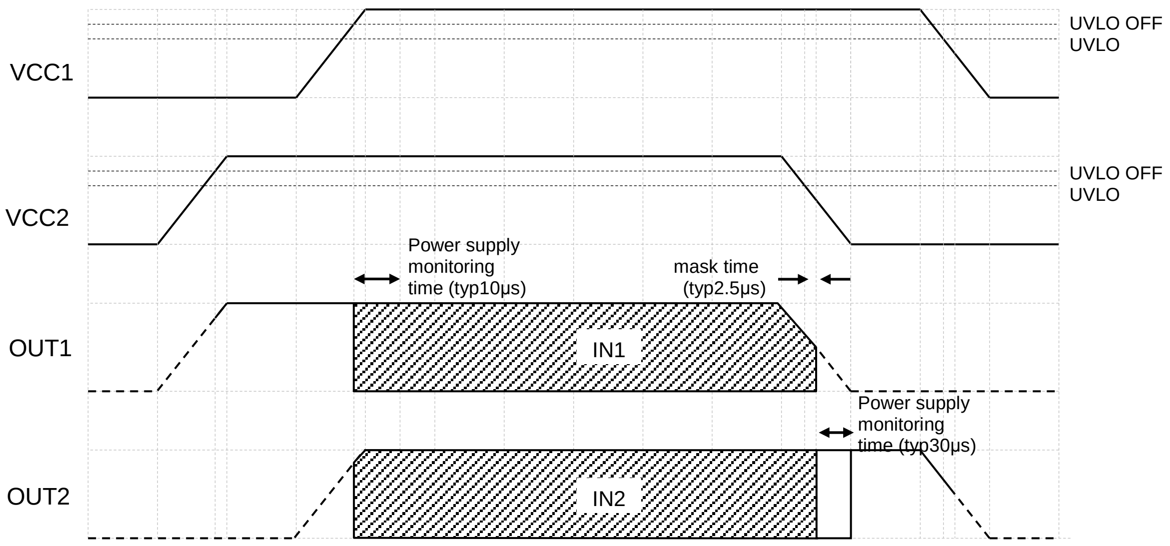


Figure 4. VCC2→VCC1 at Start, VCC2→VCC1 at Stop

Absolute Maximum Ratings

Parameter	Symbol	Rating	Unit
Power Supply Voltage 1	V_{CC1}	7.0(Note 4)	V
Power Supply Voltage2	V_{CC2}	7.0(Note 5)	V
IN1 Pin Voltage	V_{IN1}	-0.3 ~ 7.0(Note 4)	V
IN2 Pin Voltage	V_{IN2}	-0.3 ~ 7.0(Note 5)	V
OUT1 Pin Voltage	V_{OUT1}	-0.3 ~ 7.0(Note 5)	V
OUT2 Pin Voltage	V_{OUT2}	-0.3 ~ 7.0(Note 4)	V
Output Current	I_{OMAX}	±10(Note 6)	mA
Operating Temperature Range	T_{OPR}	-40 ~ 125	°C
Storage Temperature Range	T_{STG}	-55 ~ 150	°C
Maximum Junction Temperature	T_{jmax}	150	°C

(Note 4) Reference to GND1
(Note 5) Reference to GND2
(Note 6) Should not exceed Pd and ASO.

Caution: Operating the IC over the absolute maximum ratings may damage the IC. The damage can either be a short circuit between pins or an open circuit between pins and the internal circuitry. Therefore, it is important to consider circuit protection measures, such as adding a fuse, in case the IC is operated over the absolute maximum ratings.

Thermal Resistance (Note 7)

Parameter	Symbol	Thermal Resistance (Typ)		Unit
		1s(Note 8)	2s2p(Note9)	
Junction to Ambient	θ_{JA}	180.2	108.9	°C/W
Junction to Top Characterization Parameter(Note 10)	Ψ_{JT}	82	60	°C/W

*(Note 7)*Based on JESD51-2A (Still-Air)
*(Note 8)*Using a PCB board based on JESD51-3.
*(Note 9)*Using a PCB board based on JESD51-7.
*(Note 10)*The thermal characterization parameter to report the difference between junction temperature and the temperature at the top center of the outside surface of the component package.

Recommended Operating Ratings

Parameter	Symbol	Rating	Unit
Power supply Voltage 1	V_{CC1}(Note 11)	4.5 ~ 5.5	V
Power supply Voltage 2	V_{CC2}(Note 12)	4.5 ~ 5.5	V

(Note 11) Reference to GND1
(Note 12) Reference to GND2

Insulation Related Characteristics

Parameter	Symbol	Characteristic	Unit
Insulation Resistance (V_{IO}=500V)	R_S	$>10^9$	Ω
Insulation Withstand Voltage (1min.)	V_{ISO}	2500	Vrms
Insulation Test Voltage (1s)	V_{ISO}	3000	Vrms

Electrical Characteristics

(All values at Ta=-40°C to 125°C and VCC1=VCC2=4.5V to 5.5V, unless otherwise specified)

Parameter	Symbol	Limit			Unit	Conditions
		Min	Typ	Max		
<Whole>						
VCC1 Power Supply Current, DC	I_{CC1Q}	-	0.35	0.80	mA	V_{IN} = 0 or VCC
VCC2 Power Supply Current, DC	I_{CC2Q}	-	0.35	0.80	mA	V_{IN} = 0 or VCC
VCC1 Power Supply Current, 500kbps	$I_{CC500k1}$	-	0.6	1.8	mA	f_{IN} : 250kHz
VCC2 Power Supply Current, 500kbps	$I_{CC500k2}$	-	0.6	1.8	mA	f_{IN} : 250kHz
<Output pin: OUT1, OUT2>						
High-level Output Voltage	V_{OH}	V_{CC}-0.4	V_{CC}-0.2	Vcc	V	I_O=-4mA
Low-level Output Voltage	V_{OL}	0	0.2	0.4	V	I_O=4mA
<Input pin: IN1, IN2>						
Input Current	I_{IN}	-	0	10	µA	V_{IN}=VCC
High-level Input Threshold	V_{INH}	V_{CC}×0.7	-	V_{CC}	V	
Low-level Input Threshold	V_{INL}	0	-	V_{CC}×0.3	V	
<Switching Characteristics>						
Propagation Delay (Low to High)	t_{PLH}	-	25	40	ns	
Propagation Delay (High to Low)	t_{PHL}	-	25	40	ns	
Propagation Distortion	$\|t_{PLH} - t_{PHL}\|$	-	0	10	ns	
Maximum data rate	f_{IN}	10	-	-	Mbps	
Rise Time	t_r	-	2.5	-	ns	
Fall Time	t_f	-	2.5	-	ns	
Common-Mode Transient Immunity	CM_{AC}	25	35	-	kV/µs	

Input/Output Timing

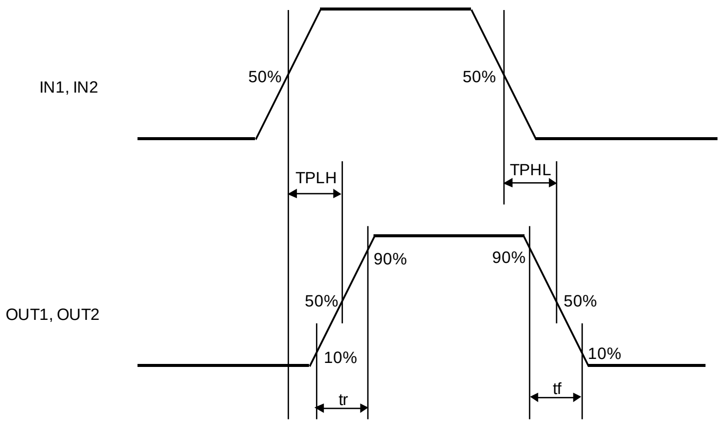


Figure 5. Input/Output Timing Chart

Typical Performance Curve (Reference Data)

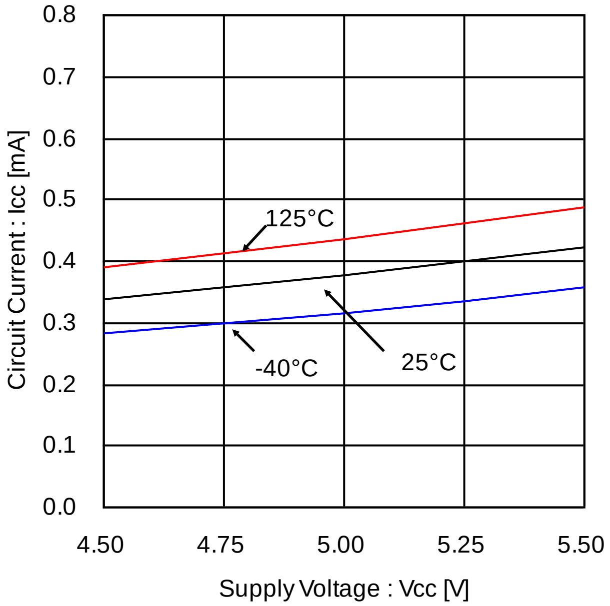


Figure 6. Circuit Current vs Supply Voltage (VCC1 Power Supply Current, DC IN1=GND1, IN2=GND2)

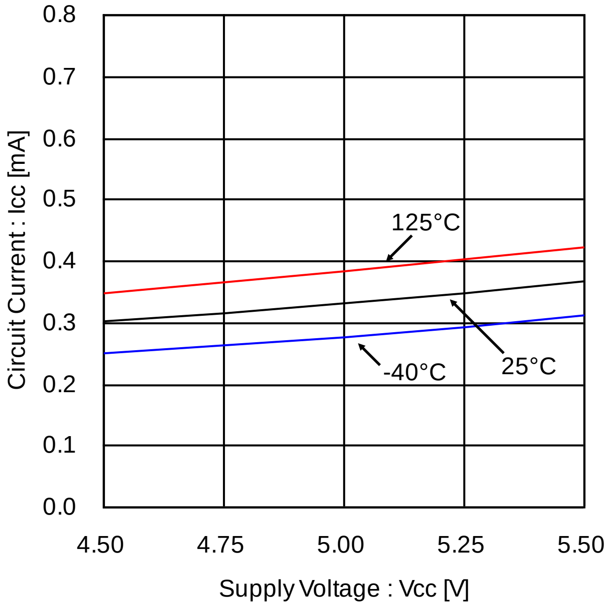


Figure 7. Circuit Current vs Supply Voltage (VCC1 Power Supply Current, DC IN1=VCC1, IN2=VCC2)

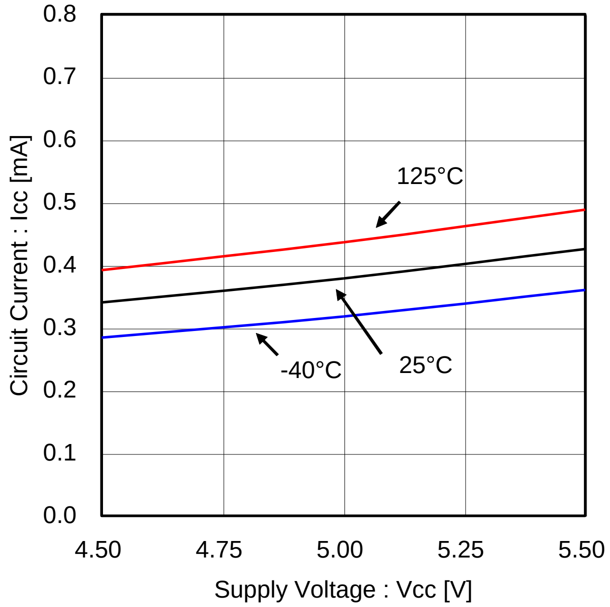


Figure 8. Circuit Current vs Supply Voltage (VCC2 Power Supply Current, DC IN1=GND1, IN2=GND2)

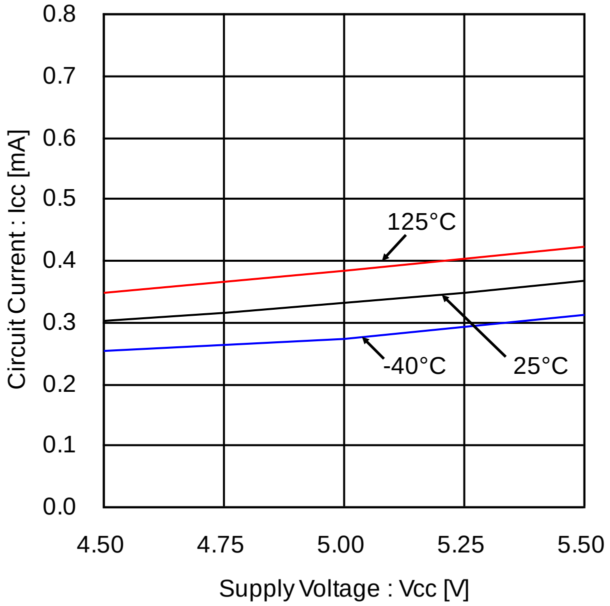


Figure 9. Circuit Current vs Supply Voltage (VCC2 Power Supply Current, DC IN1=VCC1, IN2=VCC2)

Typical Performance Curve (Reference Data)

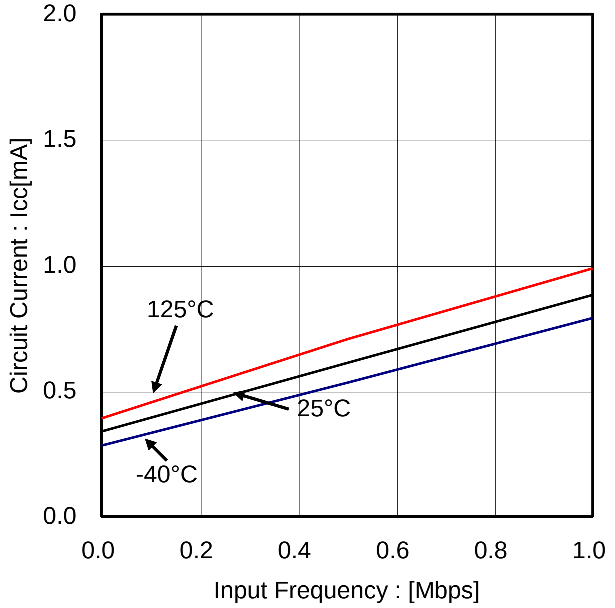


Figure 10. Circuit Current vs Supply Voltage
(VCC1 Power Supply Current, VCC1,VCC2＝4.5V)

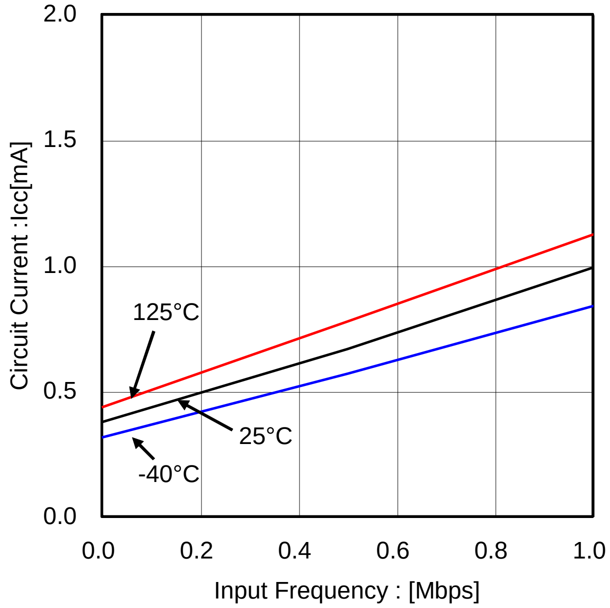


Figure 11. Circuit Current vs Supply Voltage
(VCC1 Power Supply Current, VCC1,VCC2＝5.0V)

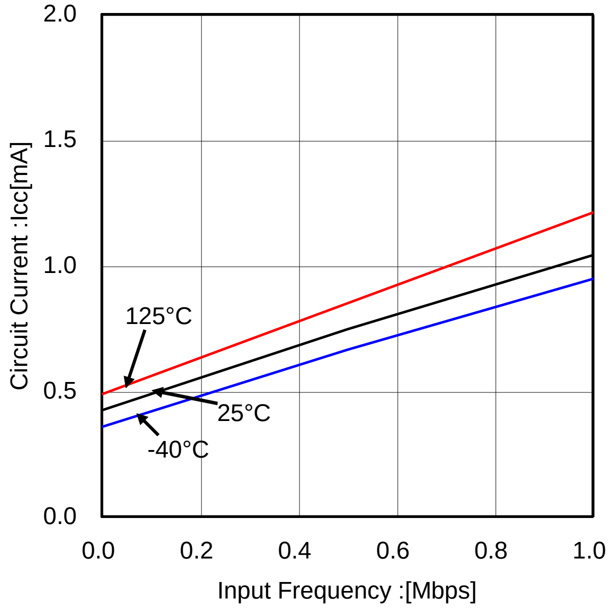


Figure 12. Circuit Current vs Supply Voltage
(VCC1 Power Supply Current, VCC1,VCC2＝5.5V)

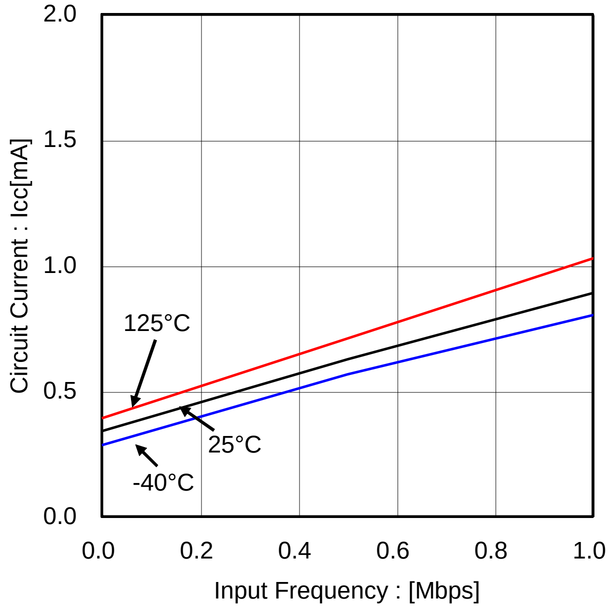


Figure 13. Circuit Current vs Supply Voltage
(VCC2 Power Supply Current, VCC1,VCC2＝4.5V)

Typical Performance Curve (Reference Data))

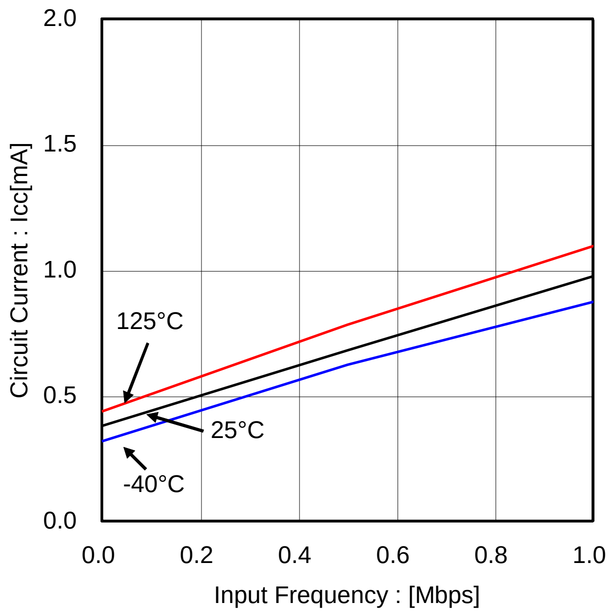


Figure 14. Circuit Current vs Supply Voltage
(VCC2 Power Supply Current, VCC1,VCC2＝5.0V)

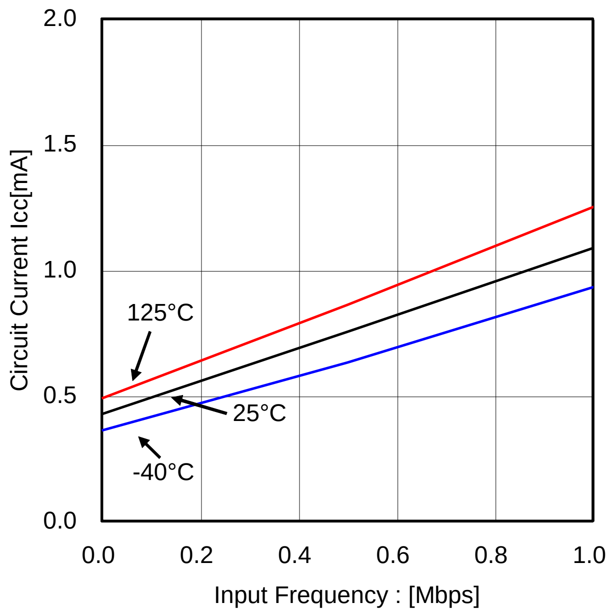


Figure 15. Circuit Current vs Supply Voltage
(VCC2 Power Supply Current, VCC1,VCC2＝5.5V)

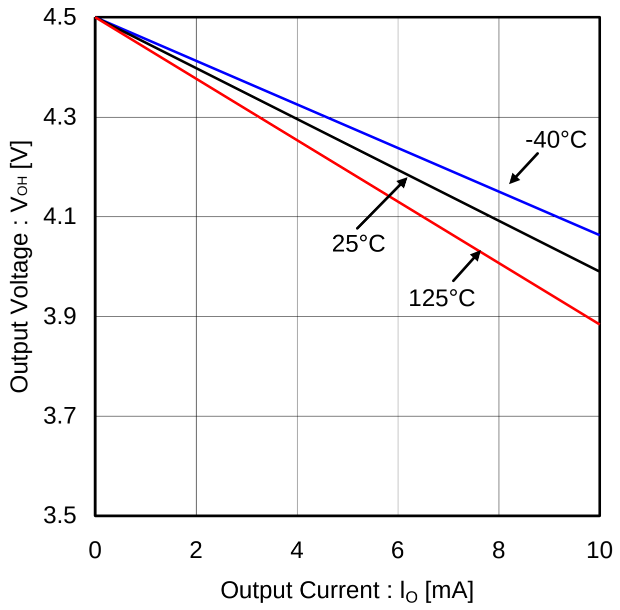


Figure 16. Output Voltage vs Output Current
(High-level Output Voltage, VCC1,VCC2＝4.5V)

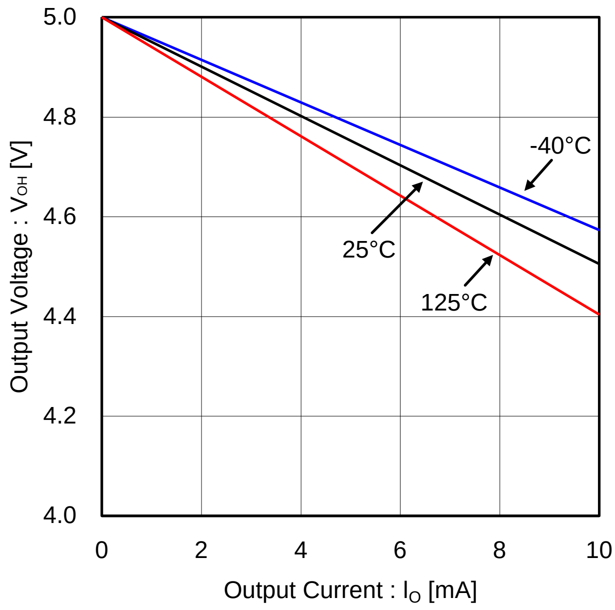


Figure 17. Output Voltage vs Output Current
(High-level Output Voltage, VCC1,VCC2＝5.0V)

Typical Performance Curve (Reference Data)

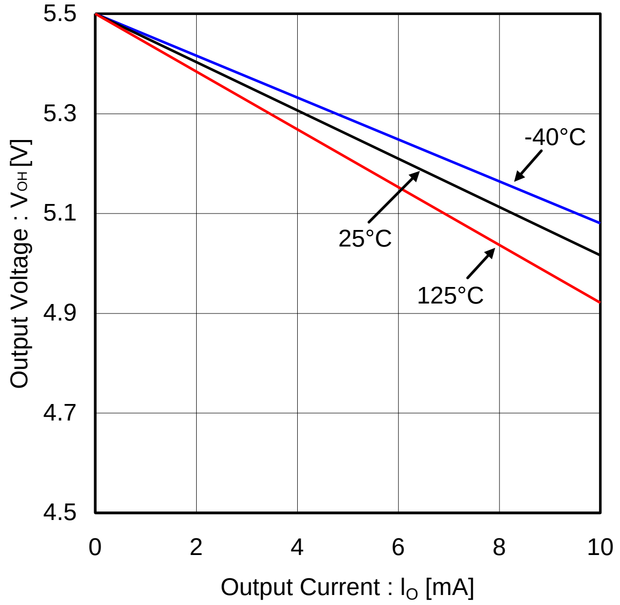


Figure 18. Output Voltage vs Output Current
(High-level Output Voltage, VCC1,VCC2＝5.5V)

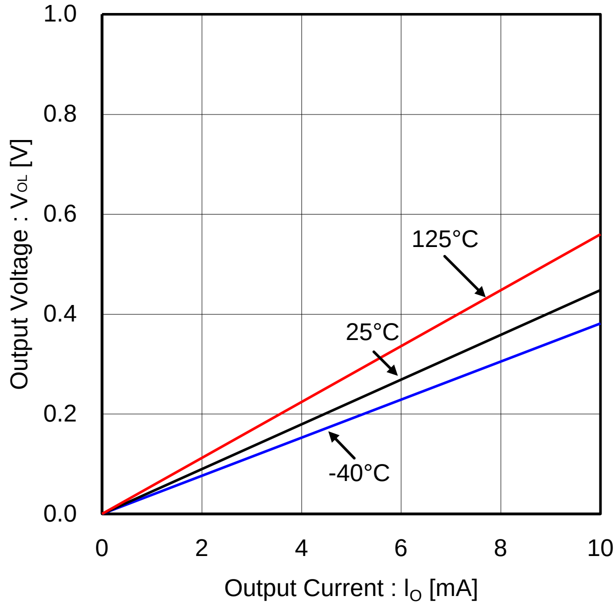


Figure 19. Output Voltage vs Output Current
(Low-level Output Voltage, VCC1,VCC2＝4.5V)

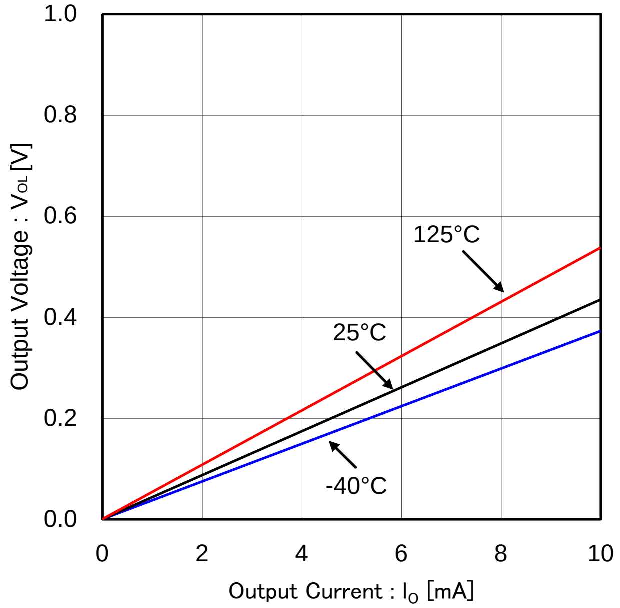


Figure 20. Output Voltage vs Output Current
(Low-level Output Voltage, VCC1,VCC2＝5.0V)

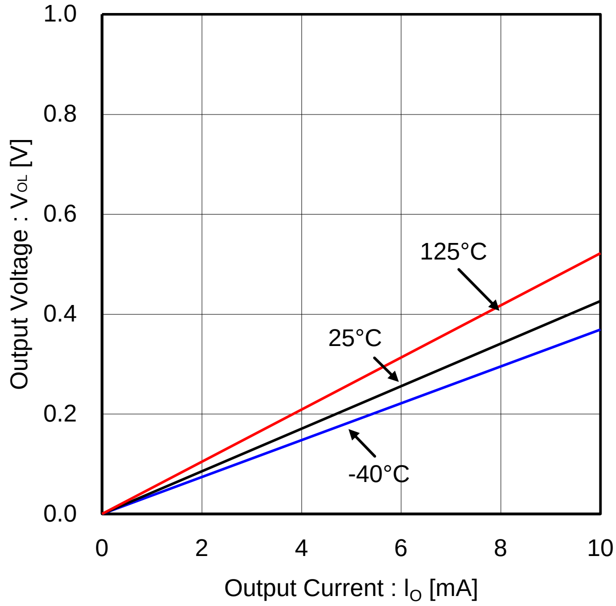


Figure 21. Output Voltage vs Output Current
(Low-level Output Voltage, VCC1,VCC2＝5.5V)

Typical Performance Curve (Reference Data)

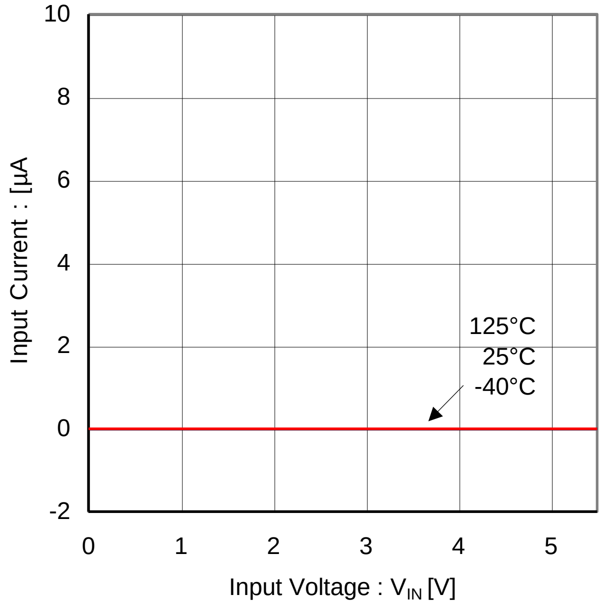


Figure 22. Input Current vs Input Voltage
(Input Current at Input Pin)

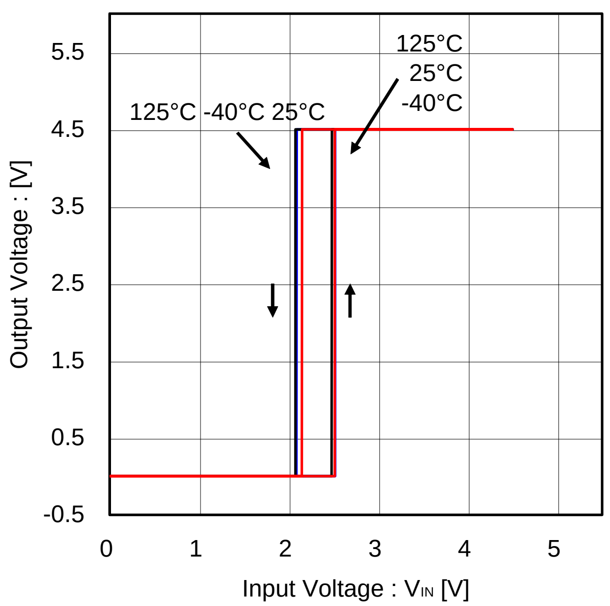


Figure 23. Output voltage vs Input Voltage
(High-/Low-level Input Threshold, VCC1,VCC2＝4.5V)

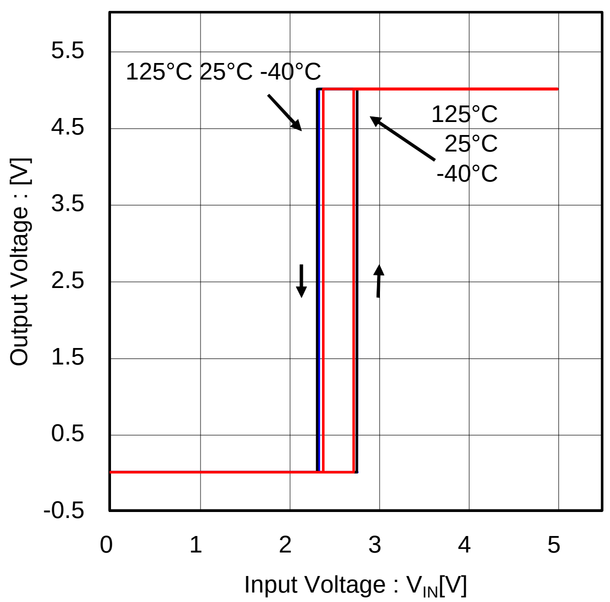


Figure 24. Output voltage vs Input Voltage
(High-/Low-level Input Threshold, VCC1,VCC2＝5.0V)

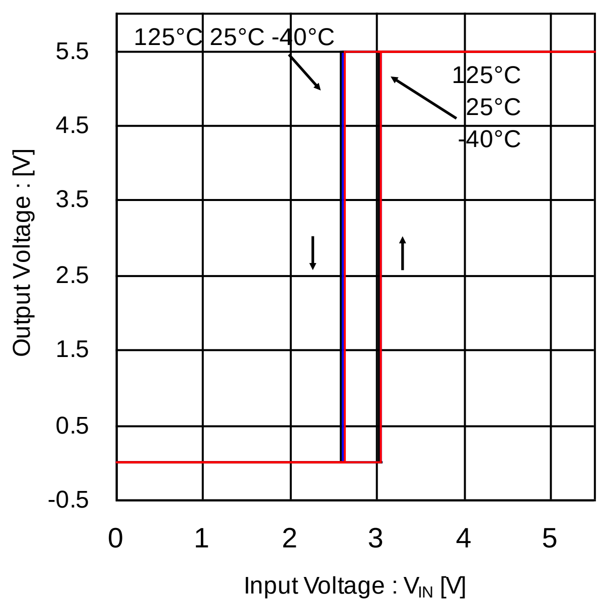


Figure 25. Output voltage vs Input Voltage
(High-/Low-level Input Threshold, VCC1,VCC2＝5.5V)

Typical Performance Curve (Reference Data)

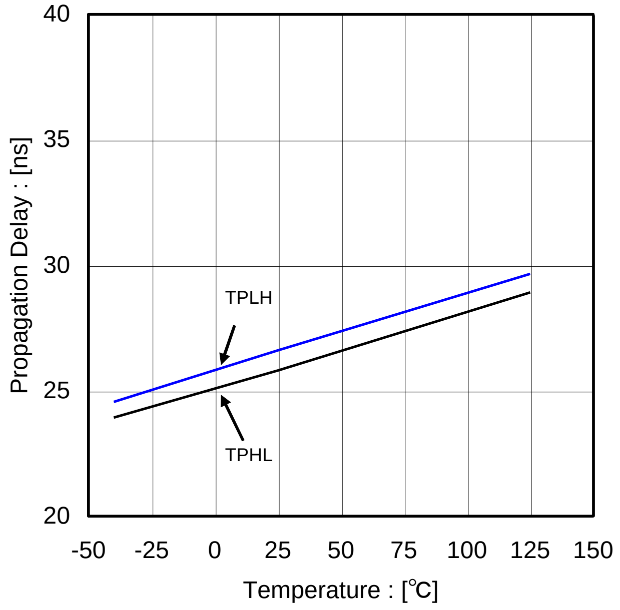


Figure 26. Propagation Delay vs Temperature
(VCC1, VCC2 = 4.5V)

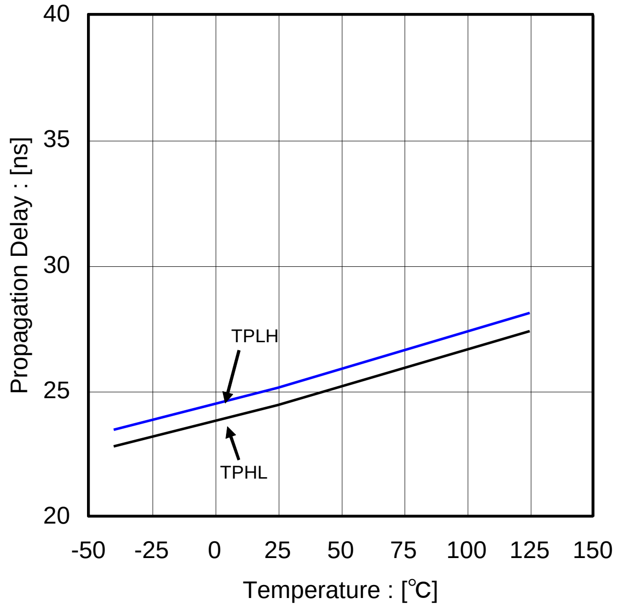


Figure 27. Propagation Delay vs Temperature
(VCC1, VCC2 = 5.0V)

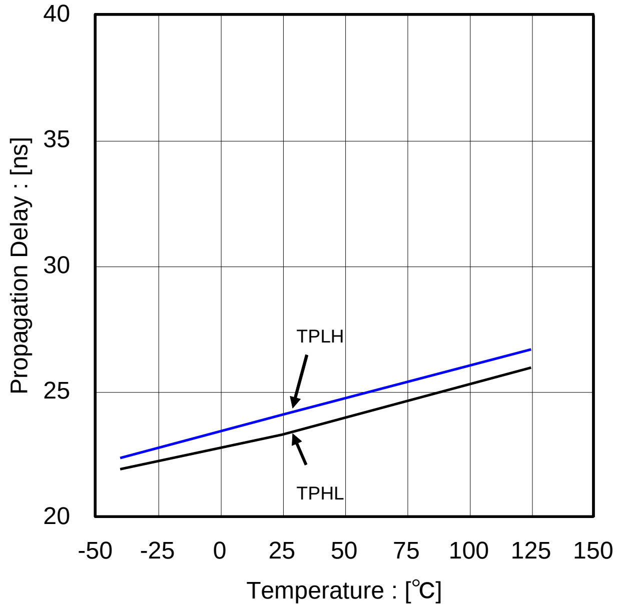


Figure 28. Propagation Delay vs Temperature
(VCC1, VCC2 = 5.5V)

I/O Equivalent Circuit

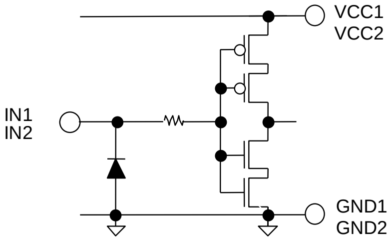


Figure 29. IN1, IN2

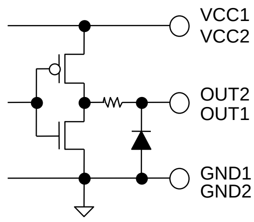


Figure 30. OUT1, OUT2

Operational Notes

1. **Reverse Connection of Power Supply**
   Connecting the power supply in reverse polarity can damage the IC. Take precautions against reverse polarity when connecting the power supply, such as mounting an external diode between the power supply and the IC's power supply pins.

2. **Power Supply Lines**
   Design the PCB layout pattern to provide low impedance supply lines. Separate the ground and supply lines of the digital and analog blocks to prevent noise in the ground and supply lines of the digital block from affecting the analog block. Furthermore, connect a capacitor to ground at all power supply pins. Consider the effect of temperature and aging on the capacitance value when using electrolytic capacitors.

3. **Ground Voltage**
   Ensure that no pins are at a voltage below that of the ground pin at any time, even during transient condition.

4. **Ground Wiring Pattern**
   When using both small-signal and large-current ground traces, the two ground traces should be routed separately but connected to a single ground at the reference point of the application board to avoid fluctuations in the small-signal ground caused by large currents. Also ensure that the ground traces of external components do not cause variations on the ground voltage. The ground lines must be as short and thick as possible to reduce line impedance.

5. **Thermal Consideration**
   Should by any chance the maximum junction temperature rating be exceeded the rise in temperature of the chip may result in deterioration of the properties of the chip. In case of exceeding this absolute maximum rating, increase the board size and copper area to prevent exceeding the maximum junction temperature rating.

6. **Recommended Operating Conditions**
   These conditions represent a range within which the expected characteristics of the IC can be approximately obtained. The electrical characteristics are guaranteed under the conditions of each parameter.

7. **Inrush Current**
   When power is first supplied to the IC, it is possible that the internal logic may be unstable and inrush current may flow instantaneously due to the internal powering sequence and delays, especially if the IC has more than one power supply. Therefore, give special consideration to power coupling capacitance, power wiring, width of ground wiring, and routing of connections.

8. **Operation Under Strong Electromagnetic Field**
   Operating the IC in the presence of a strong electromagnetic field may cause the IC to malfunction.

9. **Testing on Application Boards**
   When testing the IC on an application board, connecting a capacitor directly to a low-impedance output pin may subject the IC to stress. Always discharge capacitors completely after each process or step. The IC's power supply should always be turned off completely before connecting or removing it from the test setup during the inspection process. To prevent damage from static discharge, ground the IC during assembly and use similar precautions during transport and storage.

10. **Inter-pin Short and Mounting Errors**
    Ensure that the direction and position are correct when mounting the IC on the PCB. Incorrect mounting may result in damaging the IC. Avoid nearby pins being shorted to each other especially to ground, power supply and output pin. Inter-pin shorts could be due to many reasons such as metal particles, water droplets (in very humid environment) and unintentional solder bridge deposited in between pins during assembly to name a few.

11. **Unused Input Pins**
    Input pins of an IC are often connected to the gate of a MOS transistor. The gate has extremely high impedance and extremely low capacitance. If left unconnected, the electric field from the outside can easily charge it. The small charge acquired in this way is enough to produce a significant effect on the conduction through the transistor and cause unexpected operation of the IC. So unless otherwise specified, unused input pins should be connected to the power supply or ground line.

Operational Notes

12. Regarding the Input Pin of the IC

This monolithic IC contains P+ isolation and P substrate layers between adjacent elements in order to keep them isolated. P-N junctions are formed at the intersection of the P layers with the N layers of other elements, creating a parasitic diode or transistor. For example (refer to figure below):

When GND > Pin A and GND > Pin B, the P-N junction operates as a parasitic diode.
When GND > Pin B, the P-N junction operates as a parasitic transistor.

Parasitic diodes inevitably occur in the structure of the IC. The operation of parasitic diodes can result in mutual interference among circuits, operational faults, or physical damage. Therefore, conditions that cause these diodes to operate, such as applying a voltage lower than the GND voltage to an input pin (and thus to the P substrate) should be avoided.

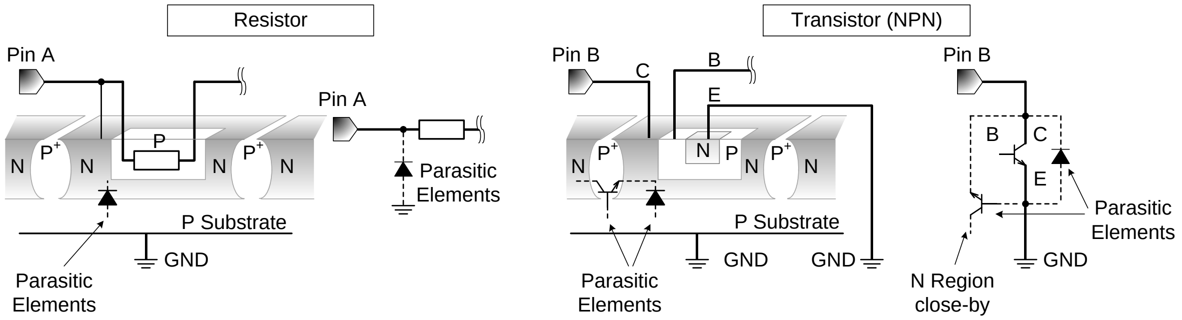


Figure 31. Example of monolithic IC structure

13. Ceramic Capacitor

When using a ceramic capacitor, determine the dielectric constant considering the change of capacitance with temperature and the decrease in nominal capacitance due to DC bias and others.

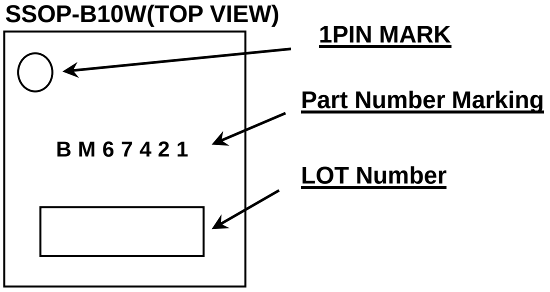
Ordering Information

B M 6 7 4 2 1 F V - CE 2

- Part Number
- Package
  FV : SSOP-B10W
- Packaging and forming specification
  E2: Embossed tape and reel

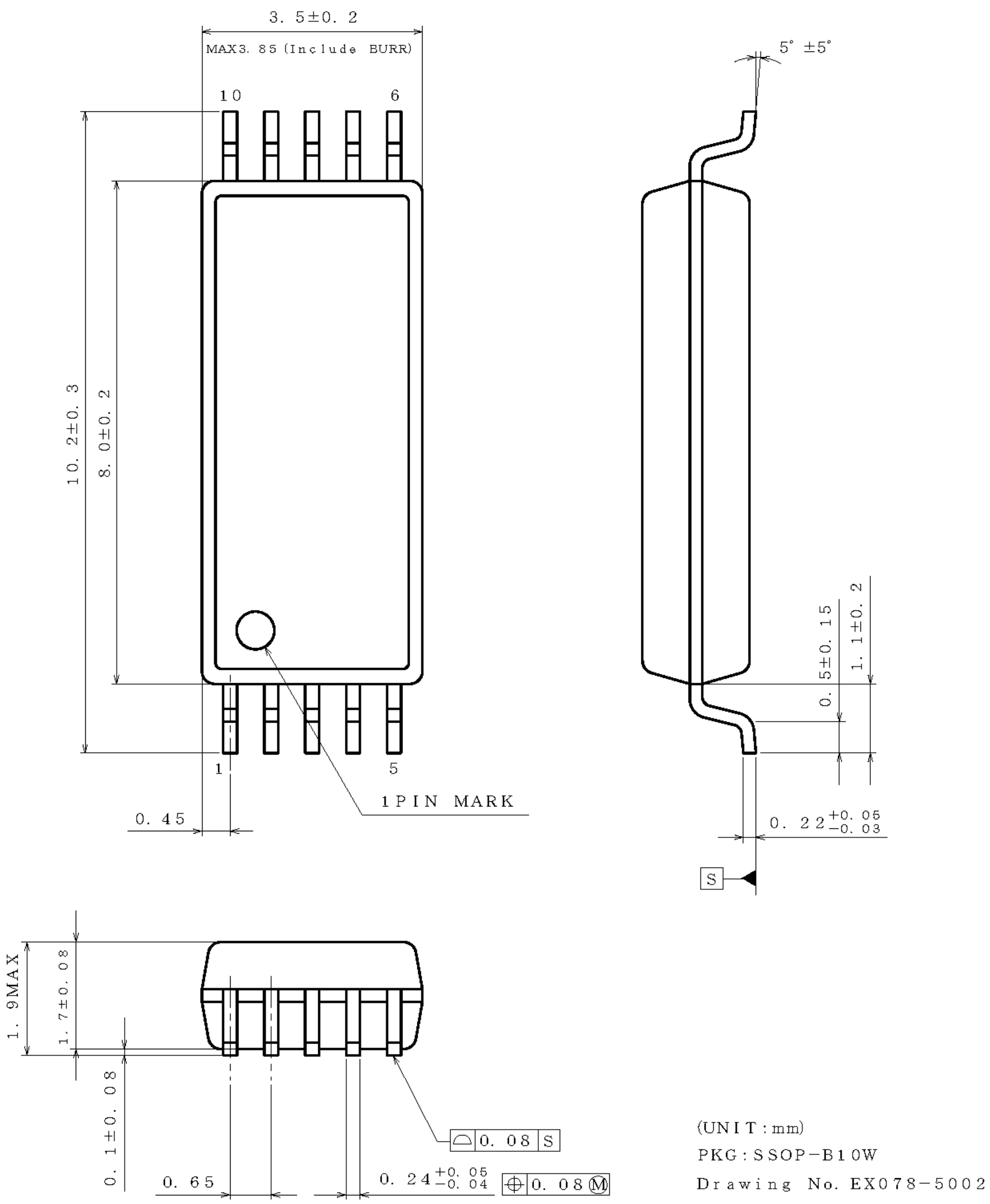
Marking Diagram

SSOP-B10W(TOP VIEW)



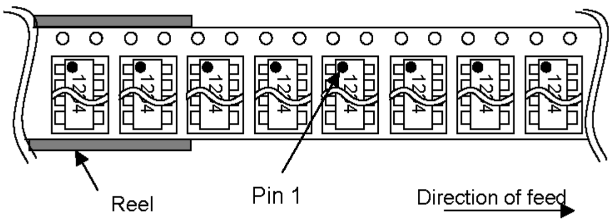
Physical Dimension, Tape and Reel Information

Package Name	SSOP-B10W



< Tape and Reel Information >

Tape	Embossed carrier tape with dry pack
Quantity	1500pcs
Direction of feed	E2 The direction is the pin 1 of product is at the upper left when you hold reel on the left hand and you pull out the tape on the right hand



Revision History

Date	Revision	Changes
21.Sep.2016	001	New Release

Notice

Precaution on using ROHM Products

1. If you intend to use our Products in devices requiring extremely high reliability (such as medical equipment (Note 1), aircraft/spacecraft, nuclear power controllers, etc.) and whose malfunction or failure may cause loss of human life, bodily injury or serious damage to property ("Specific Applications"), please consult with the ROHM sales representative in advance. Unless otherwise agreed in writing by ROHM in advance, ROHM shall not be in any way responsible or liable for any damages, expenses or losses incurred by you or third parties arising from the use of any ROHM's Products for Specific Applications.

(Note1) Medical Equipment Classification of the Specific Applications

JAPAN	USA	EU	CHINA
CLASSⅢ	CLASSⅢ	CLASSⅡb	CLASSⅢ
CLASSⅣ		CLASSⅢ	

2. ROHM designs and manufactures its Products subject to strict quality control system. However, semiconductor products can fail or malfunction at a certain rate. Please be sure to implement, at your own responsibilities, adequate safety measures including but not limited to fail-safe design against the physical injury, damage to any property, which a failure or malfunction of our Products may cause. The following are examples of safety measures:
   [a] Installation of protection circuits or other protective devices to improve system safety
   [b] Installation of redundant circuits to reduce the impact of single or multiple circuit failure

3. Our Products are not designed under any special or extraordinary environments or conditions, as exemplified below. Accordingly, ROHM shall not be in any way responsible or liable for any damages, expenses or losses arising from the use of any ROHM's Products under any special or extraordinary environments or conditions. If you intend to use our Products under any special or extraordinary environments or conditions (as exemplified below), your independent verification and confirmation of product performance, reliability, etc, prior to use, must be necessary:
   [a] Use of our Products in any types of liquid, including water, oils, chemicals, and organic solvents
   [b] Use of our Products outdoors or in places where the Products are exposed to direct sunlight or dust
   [c] Use of our Products in places where the Products are exposed to sea wind or corrosive gases, including Cl_2, H_2S, NH_3, SO_2, and NO_2
   [d] Use of our Products in places where the Products are exposed to static electricity or electromagnetic waves
   [e] Use of our Products in proximity to heat-producing components, plastic cords, or other flammable items
   [f] Sealing or coating our Products with resin or other coating materials
   [g] Use of our Products without cleaning residue of flux (even if you use no-clean type fluxes, cleaning residue of flux is recommended); or Washing our Products by using water or water-soluble cleaning agents for cleaning residue after soldering
   [h] Use of the Products in places subject to dew condensation

4. The Products are not subject to radiation-proof design.

5. Please verify and confirm characteristics of the final or mounted products in using the Products.

6. In particular, if a transient load (a large amount of load applied in a short period of time, such as pulse. is applied, confirmation of performance characteristics after on-board mounting is strongly recommended. Avoid applying power exceeding normal rated power; exceeding the power rating under steady-state loading condition may negatively affect product performance and reliability.

7. De-rate Power Dissipation depending on ambient temperature. When used in sealed area, confirm that it is the use in the range that does not exceed the maximum junction temperature.

8. Confirm that operation temperature is within the specified range described in the product specification.

9. ROHM shall not be in any way responsible or liable for failure induced under deviant condition from what is defined in this document.

Precaution for Mounting / Circuit board design

1. When a highly active halogenous (chlorine, bromine, etc.) flux is used, the residue of flux may negatively affect product performance and reliability.

2. In principle, the reflow soldering method must be used on a surface-mount products, the flow soldering method must be used on a through hole mount products. If the flow soldering method is preferred on a surface-mount products, please consult with the ROHM representative in advance.

For details, please refer to ROHM Mounting specification

Precautions Regarding Application Examples and External Circuits

1. If change is made to the constant of an external circuit, please allow a sufficient margin considering variations of the characteristics of the Products and external components, including transient characteristics, as well as static characteristics.

2. You agree that application notes, reference designs, and associated data and information contained in this document are presented only as guidance for Products use. Therefore, in case you use such information, you are solely responsible for it and you must exercise your own independent verification and judgment in the use of such information contained in this document. ROHM shall not be in any way responsible or liable for any damages, expenses or losses incurred by you or third parties arising from the use of such information.

Precaution for Electrostatic

This Product is electrostatic sensitive product, which may be damaged due to electrostatic discharge. Please take proper caution in your manufacturing process and storage so that voltage exceeding the Products maximum rating will not be applied to Products. Please take special care under dry condition (e.g. Grounding of human body / equipment / solder iron, isolation from charged objects, setting of Ionizer, friction prevention and temperature / humidity control).

Precaution for Storage / Transportation

1. Product performance and soldered connections may deteriorate if the Products are stored in the places where:
   - [a] the Products are exposed to sea winds or corrosive gases, including Cl2, H2S, NH3, SO2, and NO2
   - [b] the temperature or humidity exceeds those recommended by ROHM
   - [c] the Products are exposed to direct sunshine or condensation
   - [d] the Products are exposed to high Electrostatic

2. Even under ROHM recommended storage condition, solderability of products out of recommended storage time period may be degraded. It is strongly recommended to confirm solderability before using Products of which storage time is exceeding the recommended storage time period.

3. Store / transport cartons in the correct direction, which is indicated on a carton with a symbol. Otherwise bent leads may occur due to excessive stress applied when dropping of a carton.

4. Use Products within the specified time after opening a humidity barrier bag. Baking is required before using Products of which storage time is exceeding the recommended storage time period.

Precaution for Product Label

A two-dimensional barcode printed on ROHM Products label is for ROHM's internal use only.

Precaution for Disposition

When disposing Products please dispose them properly using an authorized industry waste company.

Precaution for Foreign Exchange and Foreign Trade act

Since concerned goods might be fallen under listed items of export control prescribed by Foreign exchange and Foreign trade act, please consult with ROHM in case of export.

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BM67421FV-C - Web Page

Part Number	BM67421FV-C
Package	SSOP-B10W
Unit Quantity	1500
Minimum Package Quantity	1500
Packing Type	Taping
Constitution Materials List	inquiry
RoHS	Yes