Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

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XC62H Series

Positive Voltage Regulator with (Output ON/OFF)

■GENERAL DESCRIPTION

The XC62H series are highly precise, low power consumption, positive voltage regulators, manufactured using CMOS and laser trimming technologies. The series consists of a high precision voltage reference, an error correction circuit, and an output driver with current limitation.

By way of the CE function, with output turned off, the series enters standby. In the stand-by mode, power consumption is greatly reduced.

SOT-25 (150mW), SOT-89-5 (500mW) and USP-6B (120mW) packages are available.

■APPLICATIONS

- ●Multi-function power supplies
- ●Voltage supplies for cellular phones
- ●Digital still cameras / Camcorders
- ●Note PC / Tablet PC

■FEATURES

Maximum Output Current
: 165mA (within max Pd, V_{OUT}=3.0V)

Output Voltage Range : 2.0V ~ 6.0V (0.1V increments)
(1.5V ~ 1.9V semi-custom)

Highly Accurate : ±2%
(±1% for semi-custom products)

Low Power Consumption
: 3μA (TYP.) (V_{OUT}=3V,Output enabled)
: 0.1μA (TYP.) (Output disabled)

Output Voltage Temperature Characteristics
: ±100ppm /°C (TYP.)

Line Regulation : 0.2% / V (TYP.)

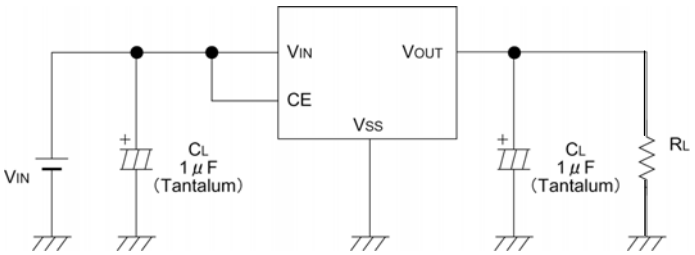
CMOS Low Power Consumption

Dropout Voltage : 0.18V @ 60mA
: 0.58V @ 160mA

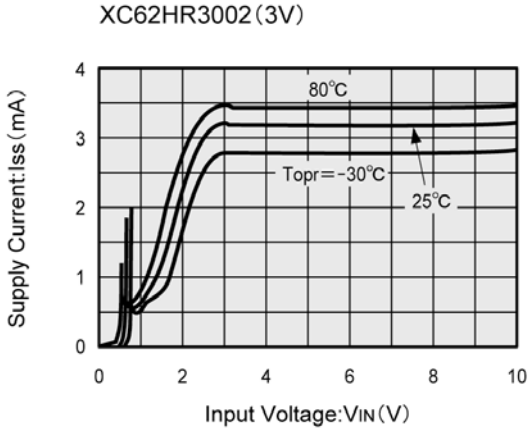
Packages : SOT-25
SOT-89-5
USP-6B

Environmentally Friendly :EU RoHS Compliant, Pb Free

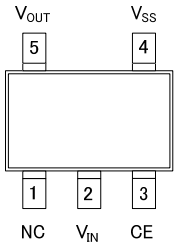
■TYPICAL APPLICATION CIRCUIT



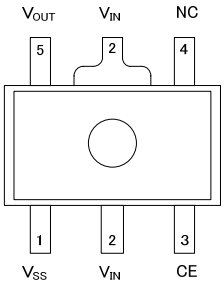
■TYPICAL PERFORMANCE CHARACTERISTICS



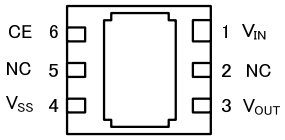
■PIN CONFIGURATION



SOT-25
(TOP VIEW)



SOT-89-5
(TOP VIEW)



USP-6B
(BOTTOM VIEW)

*The dissipation pad for the USP-6B package should be solder-plated in recommended mount pattern and metal masking so as to enhance mounting strength and heat release.
If the pad needs to be connected to other pins, it should be connected to the VIN (No.1) pin.

■PIN ASSIGNMENT

PIN NUMBER			PIN NAME	FUNCTIONS
SOT-25	SOT-89-5	USP-6B		
1	4	2, 5	NC	No Connection
2	2	1	V_{IN}	Supply Voltage Input
3	3	6	CE	ON/OFF Chip Enable
4	1	4	V_{SS}	Ground
5	5	3	V_{OUT}	Regulated Output Voltage

■FUNCTIONS

CE	OPERATION
L	OFF
H	ON
OPEN	Undefined state

■PRODUCT CLASSIFICATION

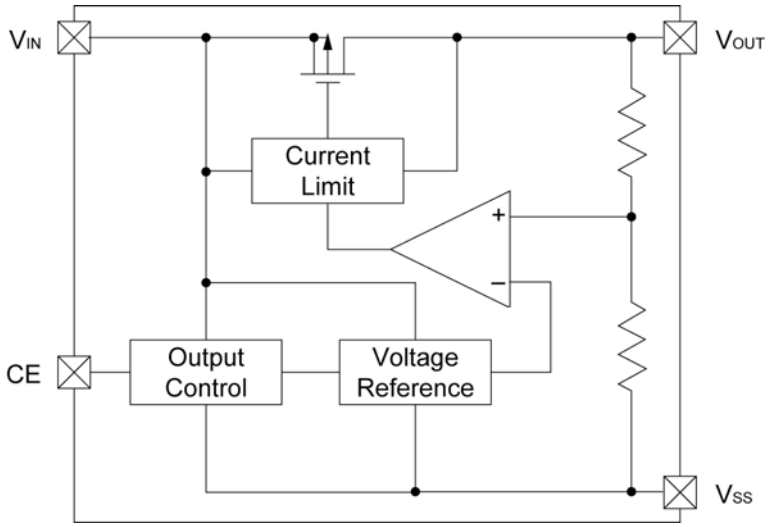
●Ordering Information

XC62H①②③④⑤⑥⑦-⑧(*1)

DESIGNATOR	ITEM	SYMBOL	DESCRIPTION
①	CE Pin Logic	R	Positive
②③	Output Voltage	20~60	e.g. VOUT 3.0V → ②=3, ③=0 VOUT 5.0V → ②=5, ③=0
④	Temperature Characteristics	0	± 100ppm (TYP.)
⑤	Output Voltage Accuracy	1	± 1% (semi-custom)
		2	± 2%
⑥⑦-⑧	Packages (Order Unit)	MR	SOT-25 (3,000/Reel)
		MR-G	SOT-25 (3,000/Reel)
		PR	SOT-89-5 (1,000/Reel)
		PR-G	SOT-89-5 (1,000/Reel)
		DR	USP-6B (3,000/Reel)
		DR-G	USP-6B (3,000/Reel)

(*1) The "-G" suffix denotes Halogen and Antimony free as well as being fully EU RoHS compliant.

■BLOCK DIAGRAM



■ABSOLUTE MAXIMUM RATINGS

Ta=25℃

PARAMETER		SYMBOL	RATINGS	UNITS
Input Voltage		VIN	12.0	V
Output Current		IOUT	500(*1)	mA
Output Voltage		VOUT	VSS -0.3 ~ VIN +1.3	V
CE Input Voltage		VCE	VSS -0.3 ~ VIN +1.3	V
Power Dissipation	SOT-25	Pd	150	mW
	SOT-89-5		500	
	USP-6B		120	
Operating Ambient Temperature		Topr	-30 ~ +80	℃
Storage Temperature		Tstg	-40 ~ +125	℃

(*1) Please use within the range of $I_{OUT} \leqq Pd/(V_{IN} - V_{OUT})$

■ELECTRICAL CHARACTERISTICS

●Low Voltage

Ta=25℃

PARAMETER	SYMBOL	CONDITIONS	MIN	TYP	MAX	UNITS	CIRCUIT
Output Voltage	$V_{OUT(E)}$(*2)	$V_{IN}=V_{OUT(T)}$(*1)+1.0V I_{OUT}=0.5mA	×0.98 E1-1(*7)	$V_{OUT(T)}$	×1.02 E1-2(*7)	V	1
Maximum Output Current	I_{OUTmax}	$V_{IN}=V_{OUT(T)}$+1.0V $V_{OUT(E)} \geqq V_{OUT(T)} \times 0.9$	E2(*7)			mA	1
Load Regulation	ΔV_{OUT}	$V_{IN}=V_{OUT(T)}$+1.0V 1mA≦I_{OUT}≦30mA		15	40	mV	1
Dropout Voltage (*3)	Vdif	Output Voltage:1.5 ～ 1.7V I_{OUT}=10mA、$V_{CE}=V_{IN}$	1.0		500	mV	1
		Output Voltage:1.8 ～ 1.9V I_{OUT}=20mA、$V_{CE}=V_{IN}$	1.0		300		
Supply Current 1	$I_{SS}1$	$V_{IN}=V_{CE}=V_{OUT(T)}$+1.0V	2.0		6.8	μA	2
Supply Current 2	$I_{SS}2$	VIN=$V_{OUT(T)}$+1.0V,$V_{CE}=V_{SS}$			0.1	μA	2
Line Regulation	$\Delta V_{OUT}/(\Delta V_{IN} \cdot V_{OUT})$	I_{OUT}0.5mA $V_{OUT(T)}$+1.0V≦V_{IN}≦10V		0.15	0.25	%/V	1
Input Voltage	V_{IN}		2		10	V	-
Output Voltage Temperature Characteristics	$\Delta V_{OUT}/(\Delta Topr \cdot V_{OUT})$	I_{OUT}=0.5mA -30℃≦Topr≦80℃		±100		ppm/℃	1
CE "High" Voltage	V_{CEH}		1.5			V	1
CE "Low" Voltage	V_{CEL}				0.25	V	1
CE "High" Current	I_{CEH}	$V_{CE}=V_{IN}$			0.1	μA	2
CE "Low" Current	I_{CEL}	$V_{CE}=V_{SS}$	-0.2	-0.05	0	μA	2

NOTE:

*1: $V_{OUT(T)}$=Specified output voltage .

*2: $V_{OUT(E)}$=Effective output voltage (i.e. the output voltage when "$V_{OUT(T)}$+1.0V" is provided at the V_{IN} pin while maintaining a certain I_{OUT} value).

*3: Vdif= {V_{IN1} (*5)-V_{OUT1} (*4)}

*4: V_{OUT1}= A voltage equal to 98% of the output voltage whenever an amply stabilized I_{OUT} {$V_{OUT(T)}$+1.0V} is input.

*5: V_{IN1}= The input voltage when V_{OUT1} appears as input voltage is gradually decreased.

*6: Over V_{IN}=2.0V of input voltage is necessary.

*7: Refer to the “Voltage chart”

■ELECTRICAL CHARACTERISTICS (Continued)

●Low Voltage Chart

SYMBOL	E1-1	E1-2	E2
PARAMETER / SETTING OUTPUT VOLTAGE(V)	OUTPUT VOLTAGE (V)		MAXIMUM OUTPUT CURRENT (mA)
$V_{OUT(T)}$	$V_{OUT(E)}$		I_{OUTmax}
	MIN	MAX	MIN
1.5	1.470	1.530	60
1.6	1.568	1.632	70
1.7	1.666	1.734	80
1.8	1.764	1.836	90
1.9	1.862	1.938	100

Note) The symbol is as same as that in the chart of electrical characteristics.

■ELECTRICAL CHARACTERISTICS (Continued)

●Standard Voltage

Ta=25℃

PARAMETER	SYMBOL	CONDITIONS	MIN	TYP	MAX	UNITS	CIRCUIT
Output Voltage (2%) Output Voltage (1%)	$V_{OUT(E)}$(*2)	$V_{IN}=V_{OUT(T)}$(*1)+1.0V I_{OUT}=40mA	×0.98 ×0.99	$V_{OUT(T)}$ E1(*6)	×1.02 ×1.01	V	1
Maximum Output Current	I_{OUTmax}	$V_{IN}=V_{OUT(T)}$+1.0V $V_{OUT(E)} \geqq V_{OUT(T)} \times 0.9$	E2(*6)			mA	1
Load Regulation	ΔV_{OUT}	$V_{IN}=V_{OUT(T)}$+1.0V 1mA≦I_{OUT}≦{C1(*7)}mA		E3-1(*6)	E3-2(*6)	mV	1
Dropout Voltage (*3)	Vdif	I_{OUT}={C2(*7)}mA		E4-1(*6)	E4-2(*6)	mV	1
	Vdif	I_{OUT}={C3(*7)}mA		E5-1(*6)	E5-2(*6)	mV	1
Supply Current 1	$I_{SS}1$	$V_{IN}=V_{CE}=V_{OUT(T)}$+1.0V		E6-1(*6)	E6-2(*6)	μA	2
Supply Current 2	$I_{SS}2$	$V_{IN}=V_{OUT(T)}$+1.0V,$V_{CE}=V_{SS}$			0.1	μA	2
Line Regulation	$\Delta V_{OUT}/(\Delta V_{IN} \cdot V_{OUT})$	I_{OUT}=40mA $V_{OUT(T)}$+1.0V≦V_{IN}≦10.0V		0.2	0.3	%/V	1
Input Voltage	V_{IN}				10	V	-
Output Voltage Temperature Characteristics	$\Delta V_{OUT}/(\Delta Topr \cdot V_{OUT})$	I_{OUT}=40mA -30℃≦Topr≦80℃		±100		ppm/℃	1
CE "High" Voltage	V_{CEH}		1.5			V	1
CE "Low" Voltage	V_{CEL}				0.25	V	1
CE "High" Current	I_{CEH}	$V_{CE}=V_{IN}$			0.1	μA	2
CE "Low" Current	I_{CEL}	$V_{CE}=V_{SS}$	-0.2	-0.05	0	μA	2

NOTE:

*1: $V_{OUT(T)}$=Specified output voltage .

*2: $V_{OUT(E)}$=Effective output voltage (i.e. the output voltage when "$V_{OUT(T)}$+1.0V" is provided at the V_{IN} pin while maintaining a certain I_{OUT} value).

*3: Vdif= {V_{IN1} (*5)-V_{OUT1} (*4)}

*4: V_{OUT1}= A voltage equal to 98% of the output voltage whenever an amply stabilized I_{OUT} {$V_{OUT(T)}$+1.0V} is input.

*5: V_{IN1}= The input voltage when V_{OUT1} appears as input voltage is gradually decreased.

*6: Refer to the “Standard Voltage, Voltage chart”

*7: Refer to the “Voltage chart ”

■ELECTRICAL CHARACTERISTICS (Continued)

●Standard Voltage, Voltage chart

SYMBOL	E1-1	E1-2			E2	E3-1	E3-2	E4-1	E4-2	E5-1	E5-2	E6-1	E6-2
PARAMETER / SETTING	OUTPUT VOLTAGE (V) (2% products)		OUTPUT VOLTAGE (V) (1% products)		MAXIMUM OUTPUT CURRENT (mA)	LOAD REGULATION (mV)		DROPOUT VOLTAGE (mV)				SUPPLY CURRENT1 (μA)	
$V_{OUT(T)}$	$V_{OUT(E)}$		$V_{OUT(E)}$		I_{OUTmax}	ΔV_{OUT}		Vdif1		Vdif2		I_{SS1}	
	MIN	MAX	MIN	MAX	MIN	TYP	MAX	TYP	MAX	TYP	MAX	TYP	MAX
2.0	1.960	2.040	1.980	2.020	115	45	90	180	360	580	880	2.9	7.9
2.1	2.058	2.142	2.079	2.121	115	45	90	180	360	580	880	2.9	7.9
2.2	2.156	2.244	2.178	2.222	115	45	90	180	360	580	880	2.9	7.9
2.3	2.254	2.346	2.277	2.323	115	45	90	180	360	580	880	2.9	7.9
2.4	2.352	2.448	2.376	2.424	115	45	90	180	360	580	880	2.9	7.9
2.5	2.450	2.550	2.475	2.525	115	45	90	180	360	580	880	2.9	7.9
2.6	2.548	2.652	2.574	2.626	115	45	90	180	360	580	880	2.9	7.9
2.7	2.646	2.754	2.673	2.727	115	45	90	180	360	580	880	2.9	7.9
2.8	2.744	2.856	2.772	2.828	115	45	90	180	360	580	880	2.9	7.9
2.9	2.842	2.958	2.871	2.929	115	45	90	180	360	580	880	2.9	7.9
3.0	2.940	3.060	2.970	3.030	165	45	90	180	360	580	880	2.9	7.9
3.1	3.038	3.162	3.069	3.131	165	45	90	180	360	580	880	3.0	8.0
3.2	3.136	3.264	3.168	3.232	165	45	90	180	360	580	880	3.0	8.0
3.3	3.234	3.366	3.267	3.333	165	45	90	180	360	580	880	3.0	8.0
3.4	3.332	3.468	3.366	3.434	165	45	90	180	360	580	880	3.0	8.0
3.5	3.430	3.570	3.465	3.535	165	45	90	180	360	580	880	3.0	8.0
3.6	3.528	3.672	3.564	3.636	165	45	90	180	360	580	880	3.0	8.0
3.7	3.626	3.774	3.663	3.737	165	45	90	180	360	580	880	3.0	8.0
3.8	3.724	3.876	3.762	3.838	165	45	90	180	360	580	880	3.0	8.0
3.9	3.822	3.978	3.861	3.939	165	45	90	180	360	580	880	3.0	8.0
4.0	3.920	4.080	3.960	4.040	200	45	90	170	340	560	840	3.1	8.1
4.1	4.018	4.182	4.059	4.141	200	45	90	170	340	560	840	3.1	8.1
4.2	4.116	4.284	4.158	4.242	200	45	90	170	340	560	840	3.1	8.1
4.3	4.214	4.386	4.257	4.343	200	45	90	170	340	560	840	3.1	8.1
4.4	4.312	4.488	4.356	4.444	200	45	90	170	340	560	840	3.1	8.1
4.5	4.410	4.590	4.455	4.545	200	45	90	170	340	560	840	3.1	8.1
4.6	4.508	4.692	4.554	4.646	200	45	90	170	340	560	840	3.1	8.1
4.7	4.606	4.794	4.653	4.747	200	45	90	170	340	560	840	3.1	8.1
4.8	4.704	4.896	4.752	4.848	200	45	90	170	340	560	840	3.1	8.1
4.9	4.802	4.998	4.851	4.949	200	45	90	170	340	560	840	3.1	8.1
5.0	4.900	5.100	4.950	5.050	220	40	80	165	320	540	820	3.1	8.1
5.1	4.998	5.202	5.049	5.151	220	40	80	165	320	540	820	3.1	8.1
5.2	5.096	5.304	5.148	5.252	220	40	80	165	320	540	820	3.1	8.1
5.3	5.194	5.406	5.247	5.353	220	40	80	165	320	540	820	3.1	8.1
5.4	5.292	5.508	5.346	5.454	220	40	80	165	320	540	820	3.1	8.1
5.5	5.390	5.610	5.445	5.555	220	40	80	165	320	540	820	3.1	8.1
5.6	5.488	5.712	5.544	5.656	220	40	80	165	320	540	820	3.1	8.1
5.7	5.586	5.814	5.643	5.757	220	40	80	165	320	540	820	3.1	8.1
5.8	5.684	5.916	5.742	5.858	220	40	80	165	320	540	820	3.1	8.1
5.9	5.782	6.018	5.841	5.959	220	40	80	165	320	540	820	3.1	8.1
6.0	5.880	6.120	5.940	6.060	220	40	80	165	320	540	820	3.1	8.1

Note) The symbol is as same as that in the chart of electrical characteristics.

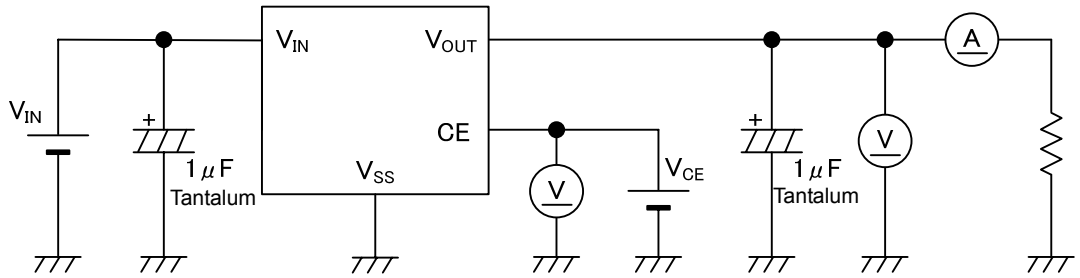
■ELECTRICAL CHARACTERISTICS (Continued)

●Voltage Chart

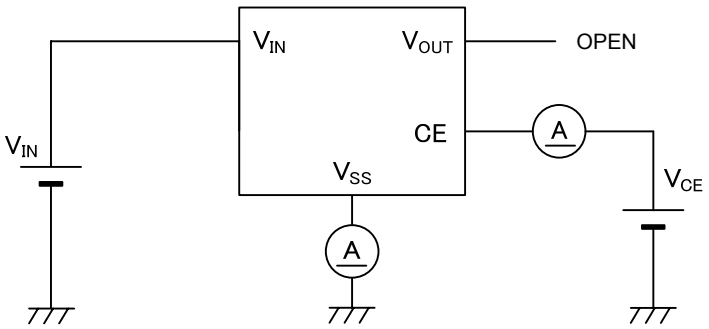
SYMBOL	C1	C2	C3
PARAMETER / SETTING / OUTPUT VOLTAGE(V)	ΔV_{OUT} CONDITIONS (mA)	Vdif1 CONDITIONS (mA)	Vdif2 CONDITIONS (mA)
$V_{OUT(T)}$	I_{OUT} CONDITIONS	I_{OUT} CONDITIONS	I_{OUT} CONDITIONS
2.0	60	40	100
2.1	60	40	100
2.2	60	40	100
2.3	60	40	100
2.4	60	40	100
2.5	60	40	100
2.6	60	40	100
2.7	60	40	100
2.8	60	40	100
2.9	60	40	100
3.0	80	60	160
3.1	80	60	160
3.2	80	60	160
3.3	80	60	160
3.4	80	60	160
3.5	80	60	160
3.6	80	60	160
3.7	80	60	160
3.8	80	60	160
3.9	80	60	160
4.0	100	80	180
4.1	100	80	180
4.2	100	80	180
4.3	100	80	180
4.4	100	80	180
4.5	100	80	180
4.6	100	80	180
4.7	100	80	180
4.8	100	80	180
4.9	100	80	180
5.0	100	100	200
5.1	100	100	200
5.2	100	100	200
5.3	100	100	200
5.4	100	100	200
5.5	100	100	200
5.6	100	100	200
5.7	100	100	200
5.8	100	100	200
5.9	100	100	200
6.0	100	100	200

■TEST CIRCUITS

Circuit 1

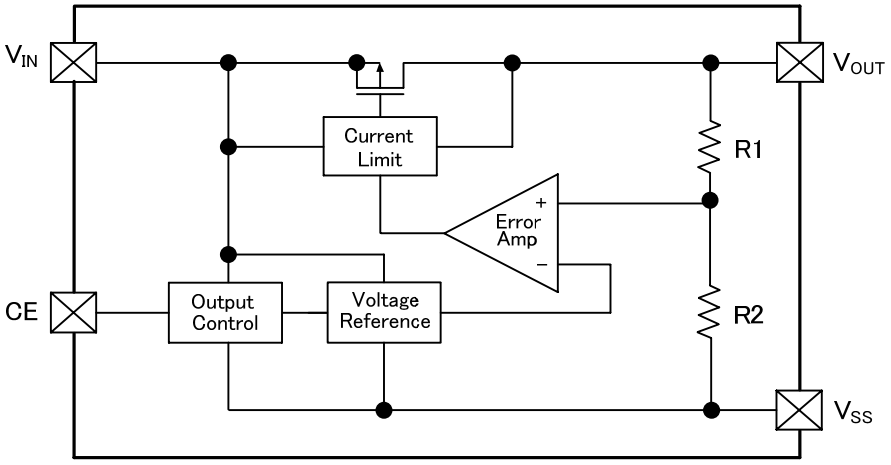


Circuit 2



■OPERATIONAL EXPLANATION

Output voltage control with the XC62H series:
The voltage divided by resistors R1 & R2 is compared with the internal reference voltage by the error amplifier.
The P-channel MOSFET, which is connected to the VOUT pin, is then driven by the subsequent output signal.
The output voltage at the VOUT pin is controlled & stabilized by a system of negative feedback.
The current limit circuit operate in relation to the level of output current.



< Current Limiter >
The XC62H series has output current limiter of fixed current limiter circuit. When the output current reaches the current limit, the fixed current limiter circuit operates and the output voltage drops with keeping the output current.

<CE Pin>
The IC's internal circuitry can be operated or shutdown via the signal from the CE pin with the XC62H series. In shutdown mode, output at the VOUT pin will be pulled down to the VSS level via R1 & R2. Note that the XC62H series' regulator is "High Active/No Pull-Down", operations will become unstable with the CE pin open. We suggest that you use this IC with either a CE High level voltage or a CE Low level voltage input at the CE pin. If this IC is used with the correct specifications for the CE pin, the operational logic is fixed and the IC will operate normally. However, supply current may increase as a result of through current in the IC's internal circuitry.

＜Input and Output Capacitors＞
The XC62H series needs an output capacitor (C_L) for phase compensation. In order to ensure the stable phase compensation, please place an output capacitor of 1.0μF at the V_{OUT} pin and V_{SS} pin as close as possible. For a stable power input, please connect an input capacitor (C_{IN}) of 1.0μF between the input pin (V_{IN}) and the ground pin (V_{SS}).

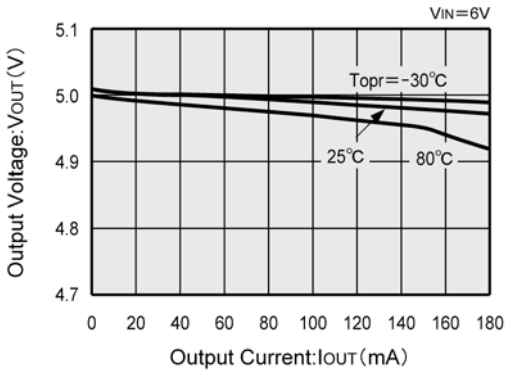
■NOTES ON USE

1. Please use this IC within the stated maximum ratings. For temporary, transitional voltage drop or voltage rising phenomenon, the IC is liable to malfunction should the ratings be exceeded.
2. Where wiring impedance is high, operations may become unstable due to noise and/or phase lag depending on output current. Please strengthen V_{IN} and V_{SS} wiring in particular.
3. Please wire the input capacitor (C_{IN}) and the output capacitor (C_L) as close to the IC as possible. Should rapid input fluctuation or load fluctuation occur, please increase the capacitor value such as CIN or CL to stabilize the operation.
4. Torex places an importance on improving our products and their reliability. We request that users incorporate fail-safe designs and post-aging protection treatment when using Torex products in their systems.

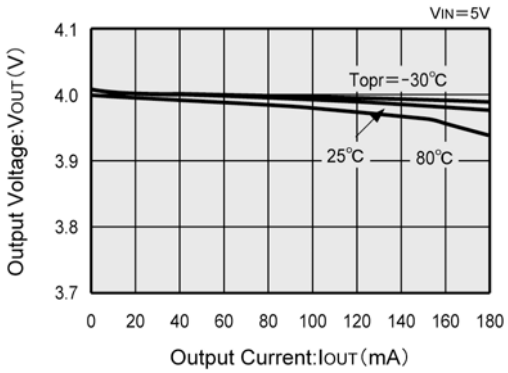
■TYPICAL PERFORMANCE CHARACTERISTICS

(1) Output Voltage vs. Output Current

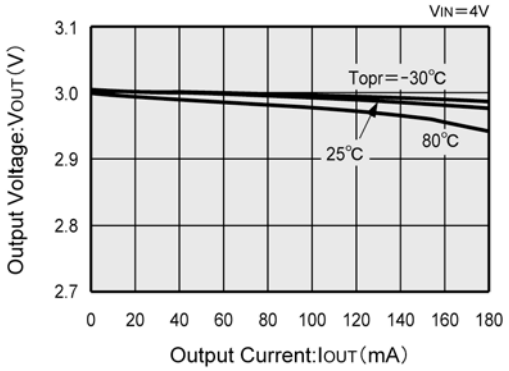
XC62HR5002(5V)



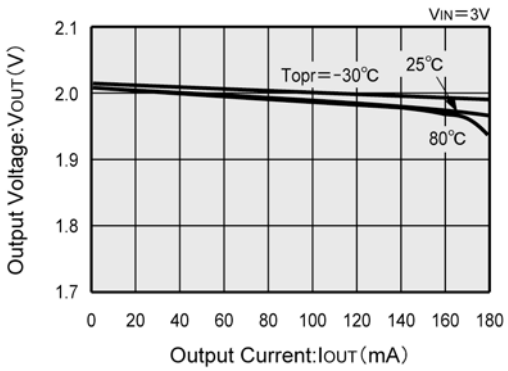
XC62HR4002(4V)



XC62HR3002(3V)

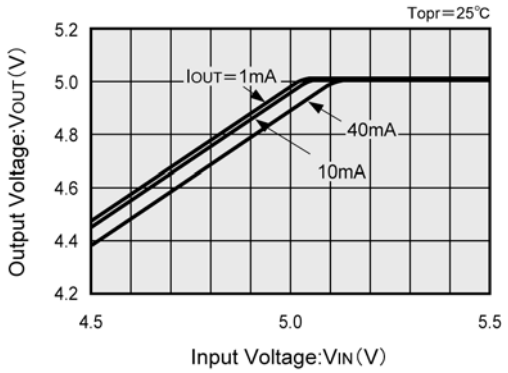


XC62HR2002(2V)

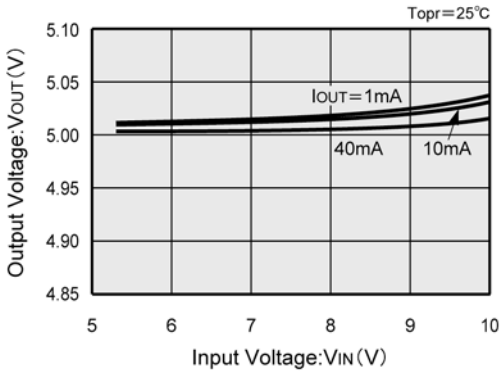


(2) Output Voltage vs. Input Voltage

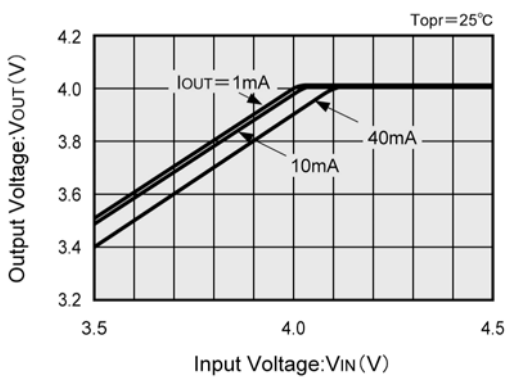
XC62HR5002(5V)



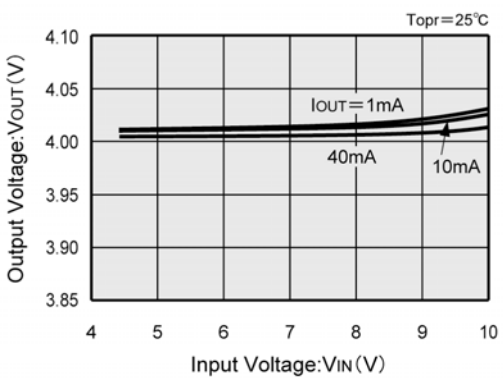
XC62HR5002(5V)



XC62HR4002(4V)



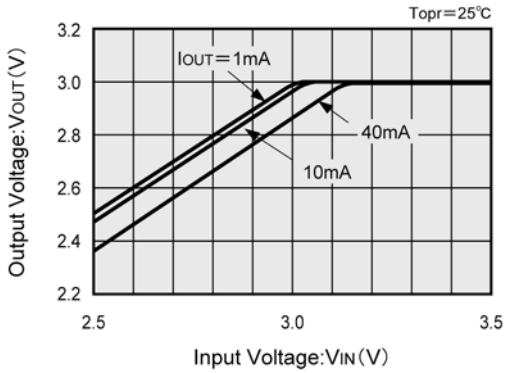
XC62HR4002(4V)



■TYPICAL PERFORMANCE CHARACTERISTICS (Continued)

(2) Output Voltage vs. Input Voltage (Continued)

XC62HR3002(3V)



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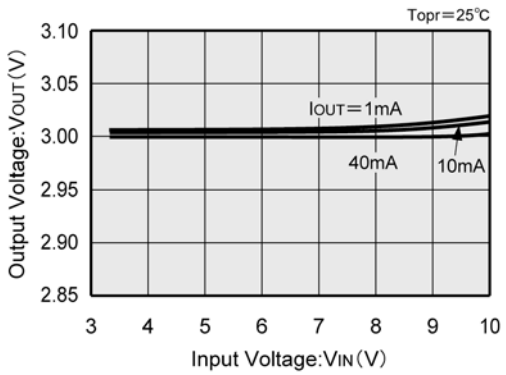
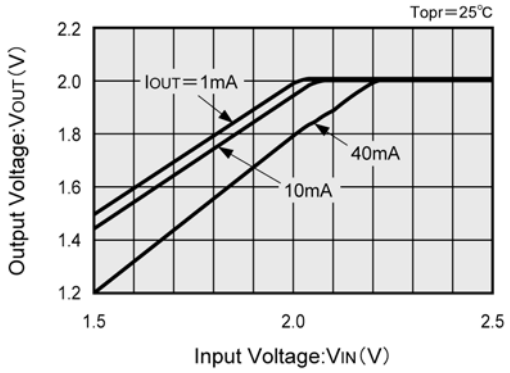
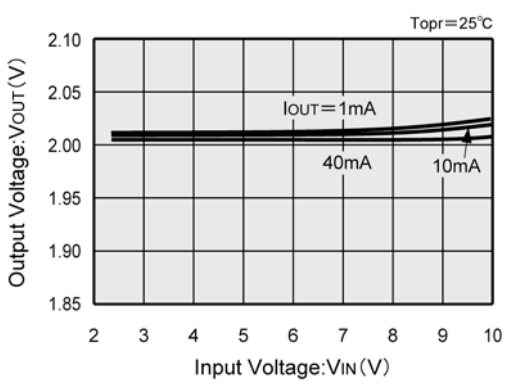


XC62HR2002(2V)

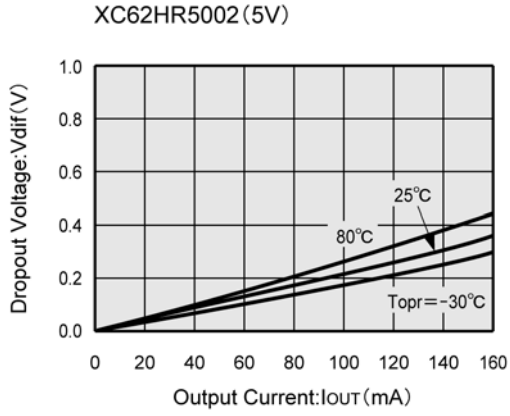


XC62HR2002(2V)

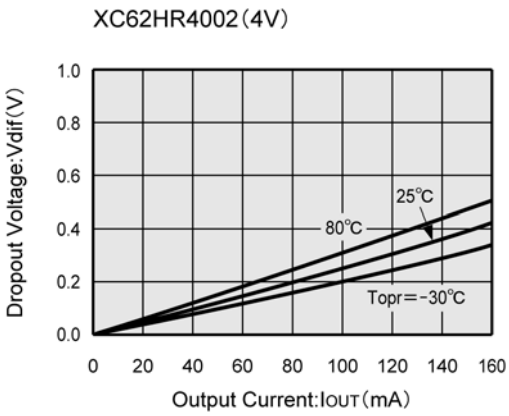


(3) Dropout Voltage vs. Output Current

XC62HR5002(5V)



XC62HR4002(4V)



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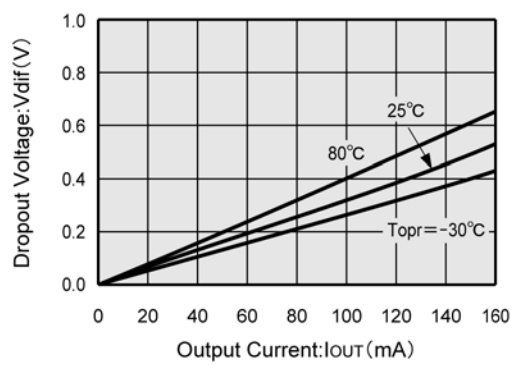
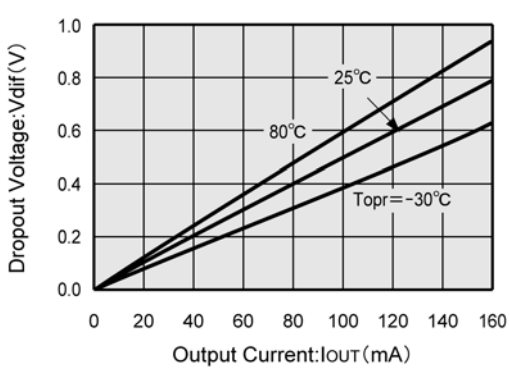


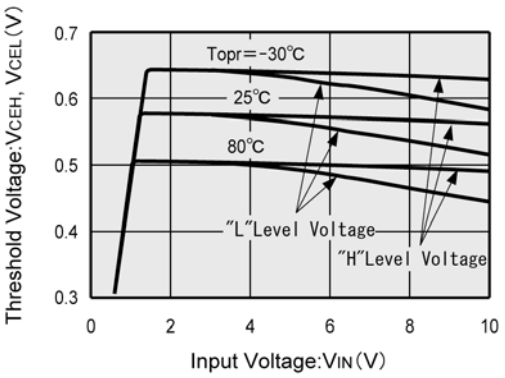
XC62HR2002(2V)



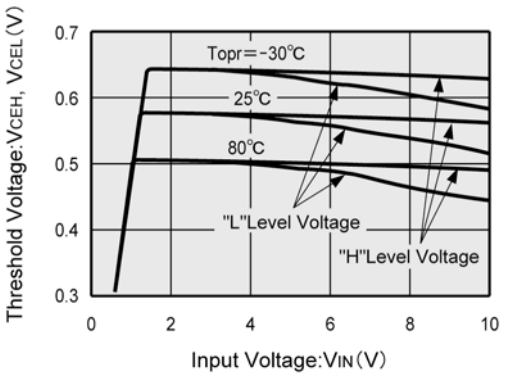
■TYPICAL PERFORMANCE CHARACTERISTICS (Continued)

(4) CE Pin Threshold Voltage vs. Input Voltage

XC62HR5002(5V)



XC62HR4002(4V)



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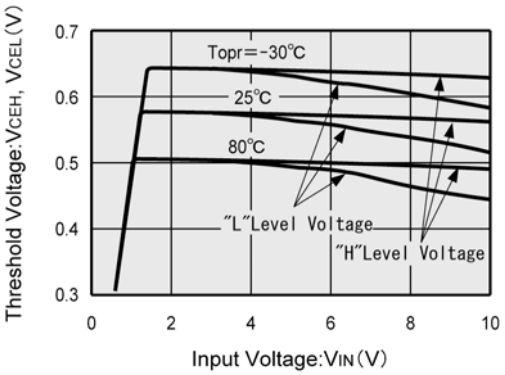
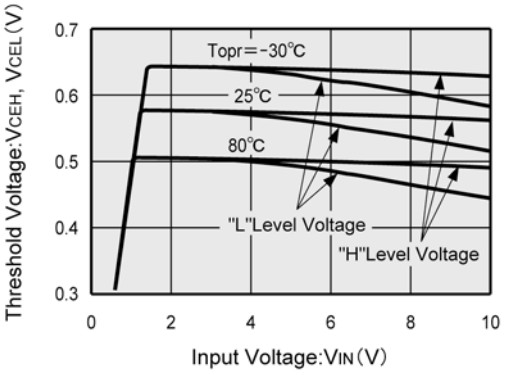
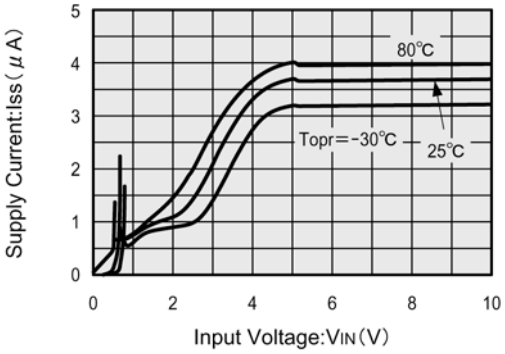


XC62HR2002(2V)

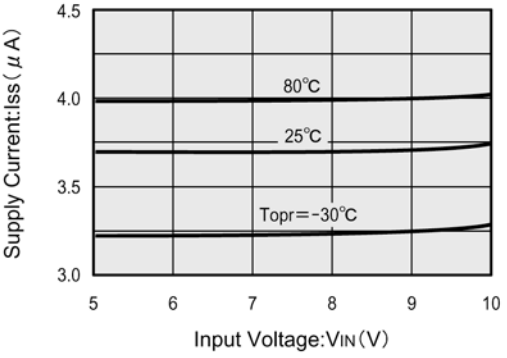


(5) Supply Current vs. Input Voltage

XC62HR5002(5V)



XC62HR5002(5V)



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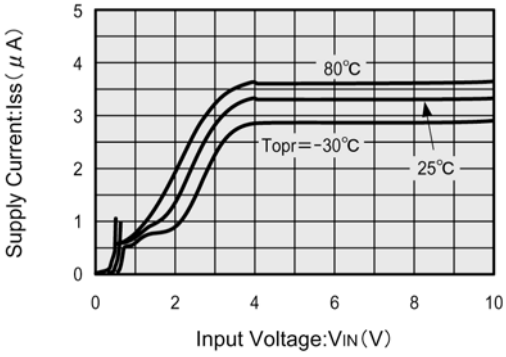

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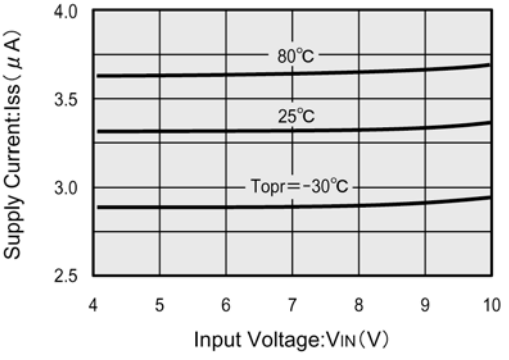
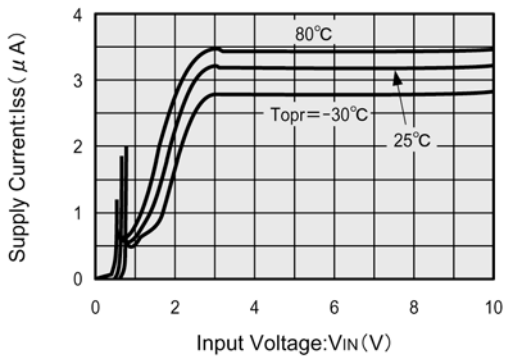


■TYPICAL PERFORMANCE CHARACTERISTICS (Continued)

(5) Supply Current vs. Input Voltage (Continued)

XC62HR3002(3V)



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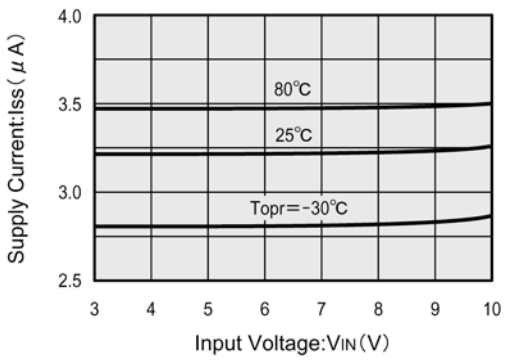
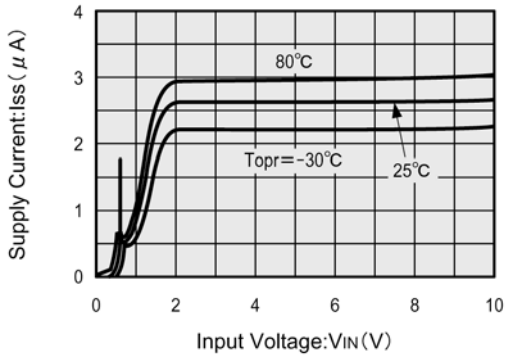
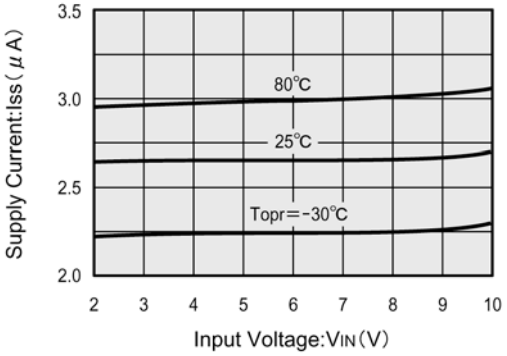


XC62HR2002(2V)

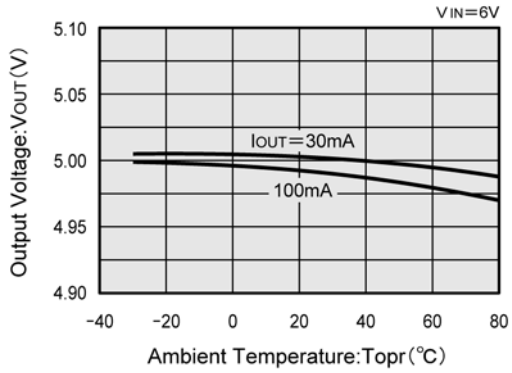


XC62HR2002(2V)

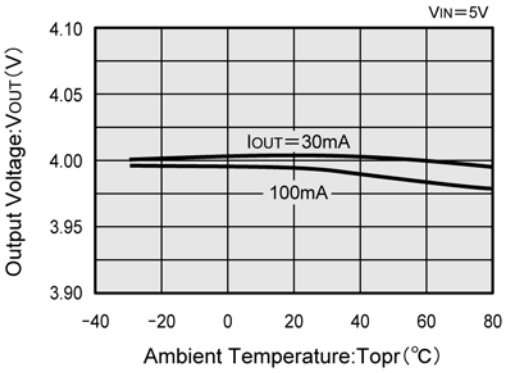


(6) Output Voltage vs. Ambient Temperature

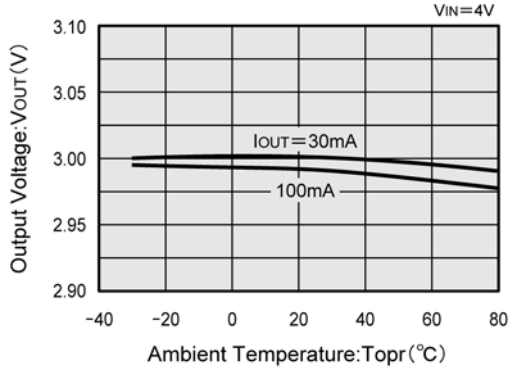
XC62HR5002(5V)



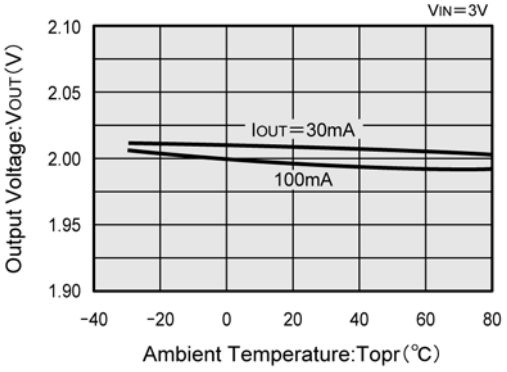
XC62HR4002(4V)



XC62HR3002(3V)

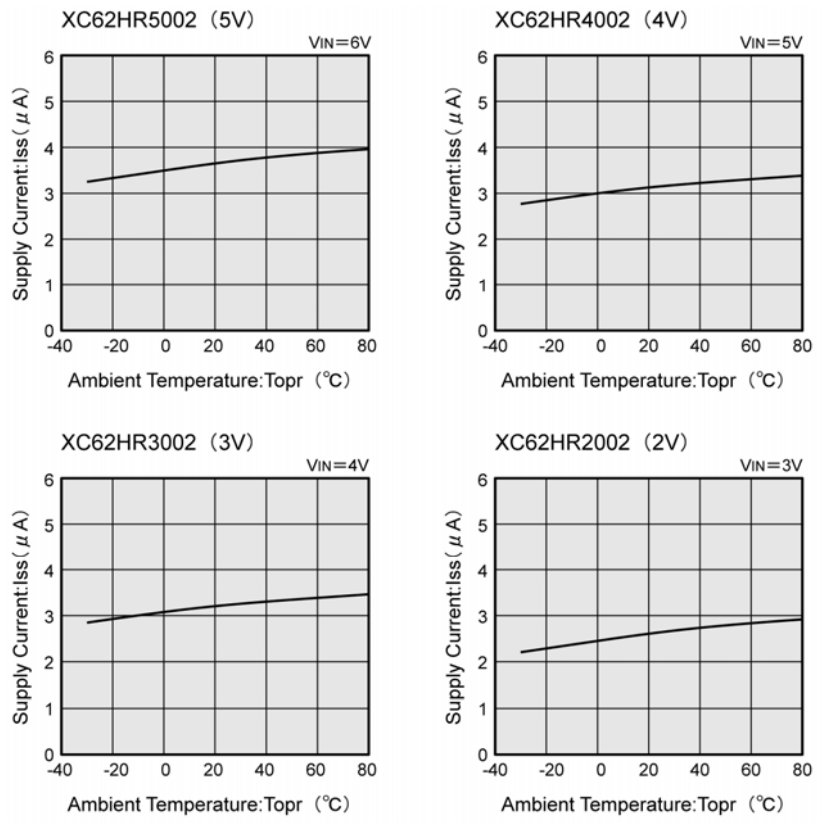


XC62HR2002(2V)

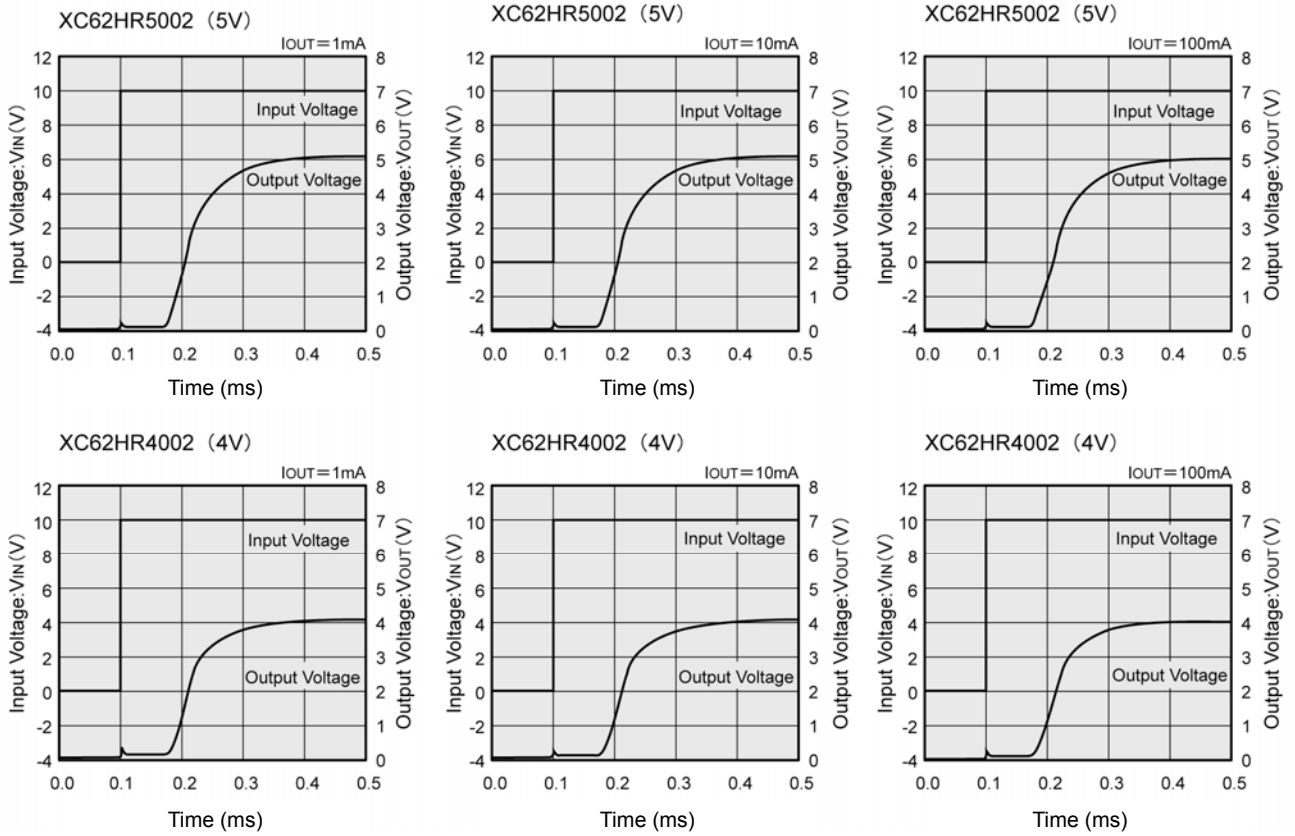


■TYPICAL PERFORMANCE CHARACTERISTICS (Continued)

(7) Supply Current vs. Ambient Temperature

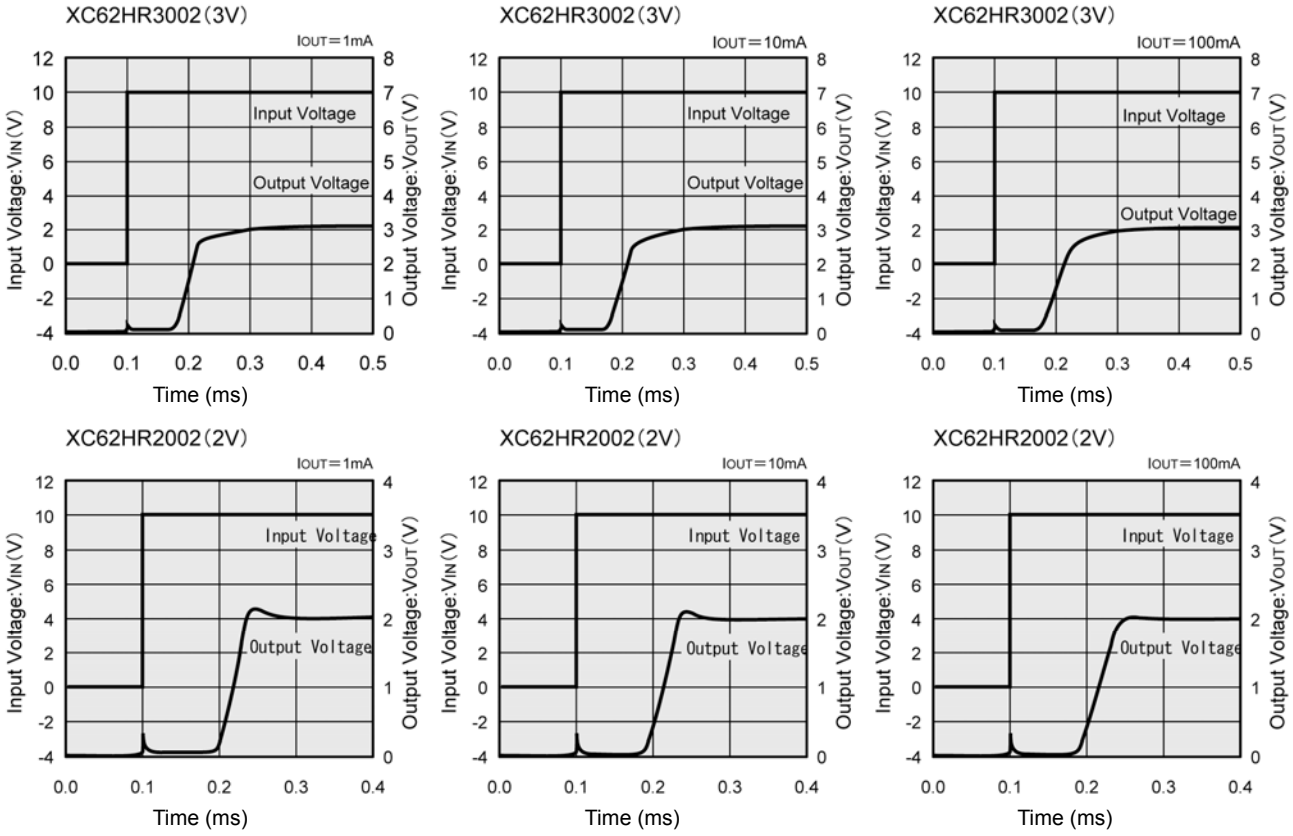


(8) Input Transient Response 1

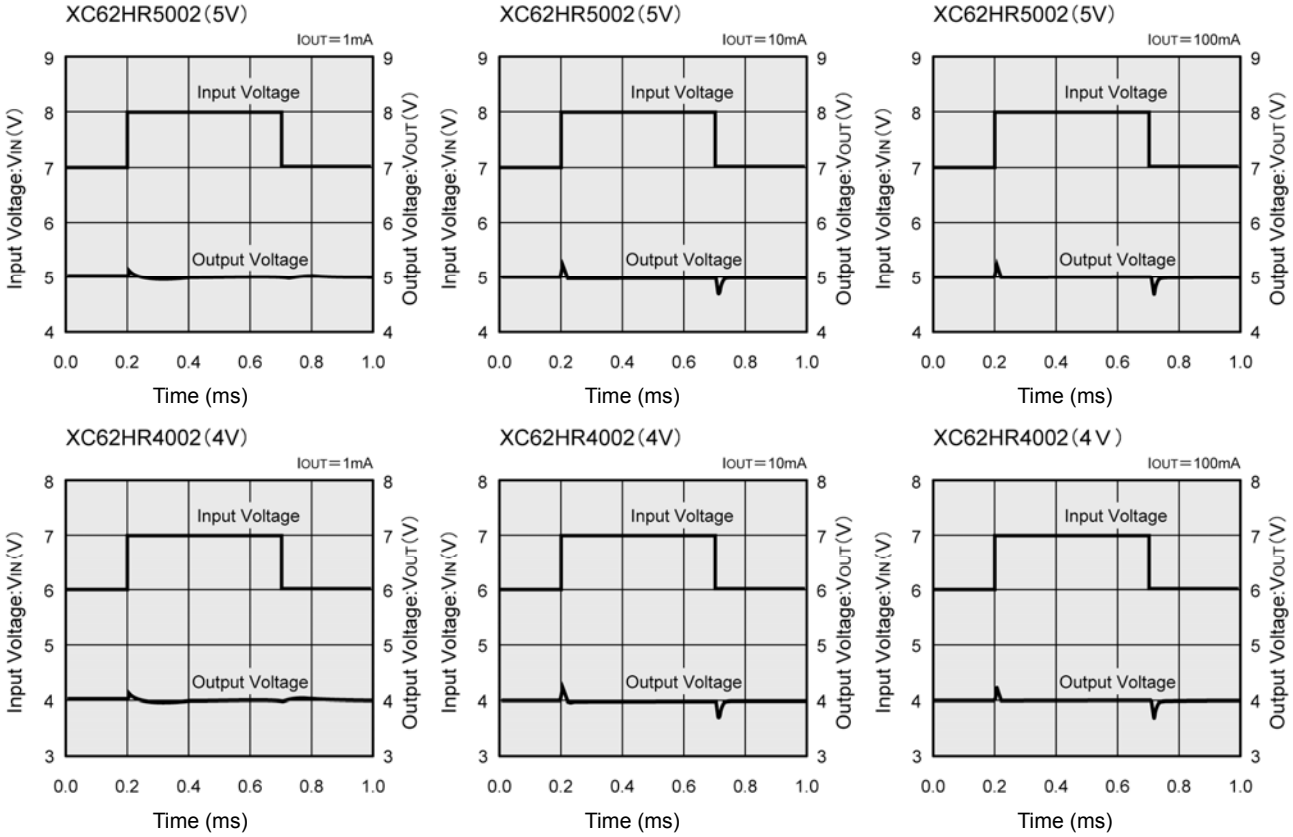


■TYPICAL PERFORMANCE CHARACTERISTICS (Continued)

(8) Input Transient Response 1 (Continued)

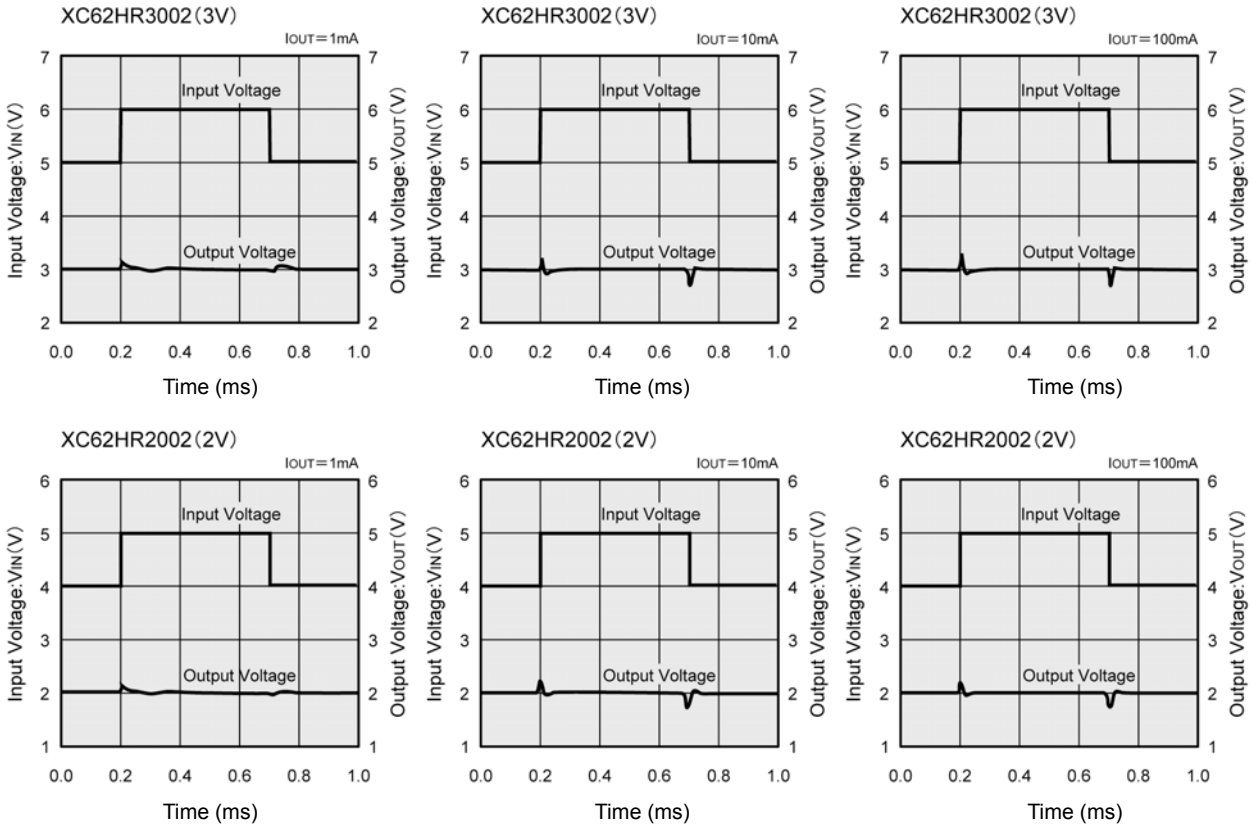


(9) Input Transient Response 2

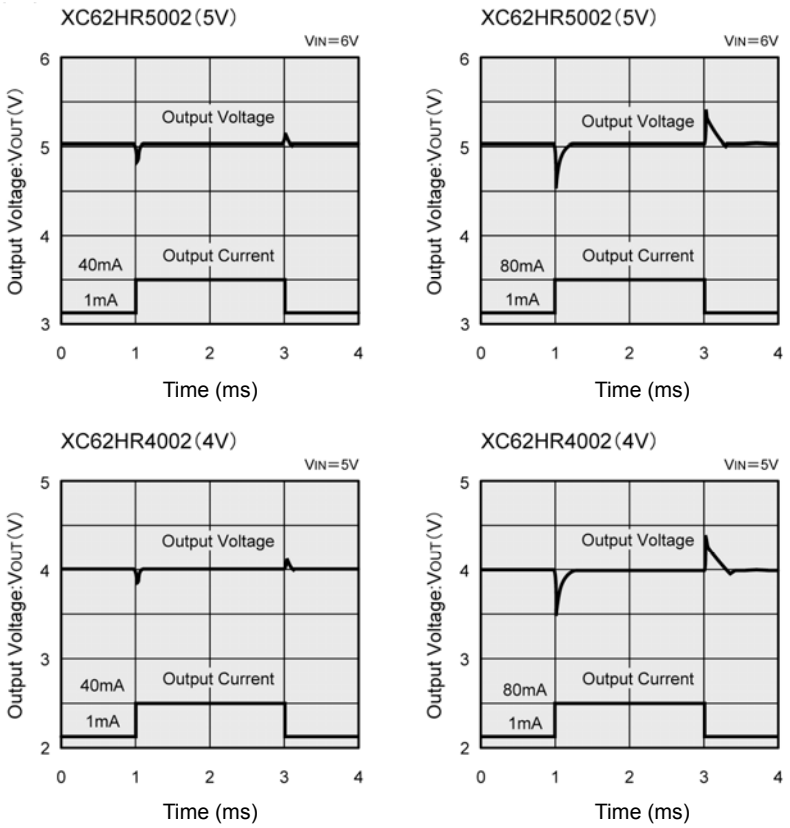


■TYPICAL PERFORMANCE CHARACTERISTICS (Continued)

(9) Input Transient Response 2 (Continued)

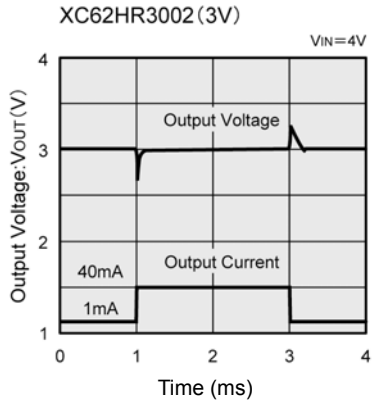


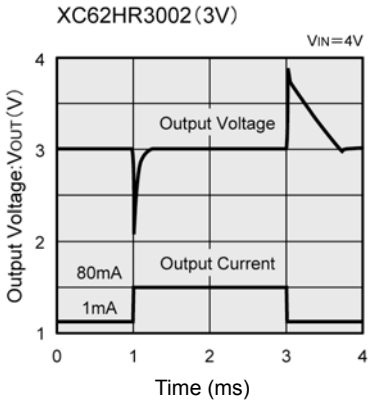
(10) Load Transient Response

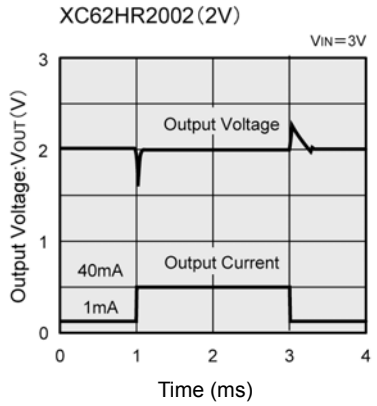


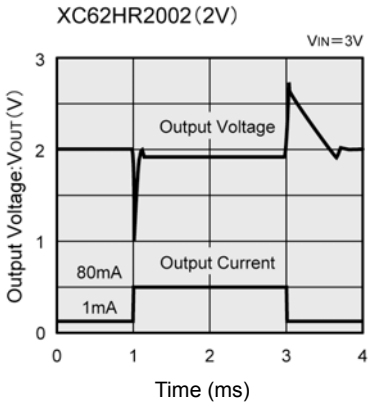
■TYPICAL PERFORMANCE CHARACTERISTICS (Continued)

(10) Load Transient Response (Continued)

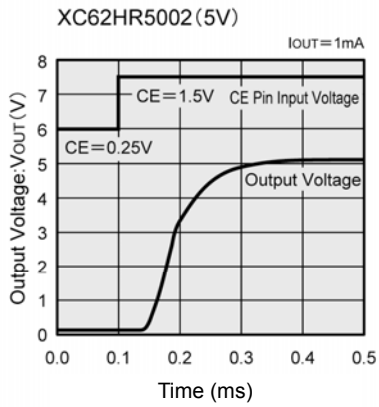


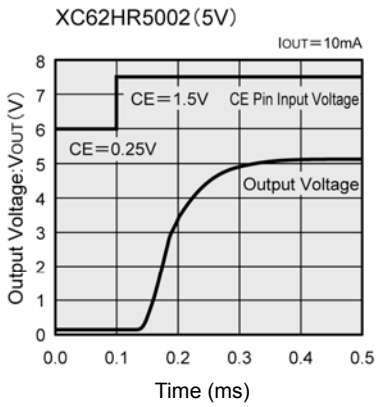


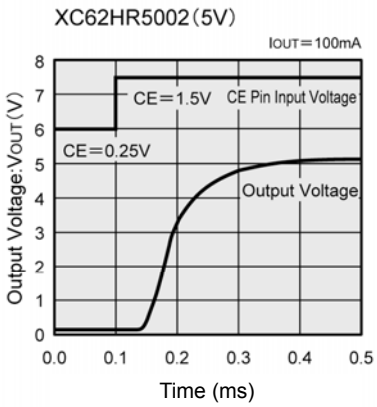


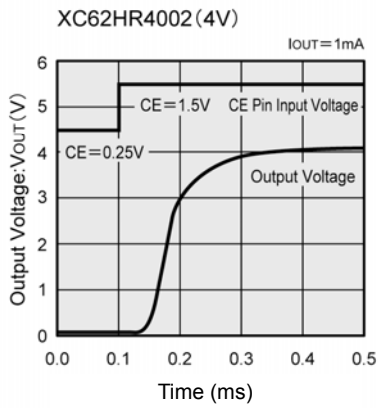


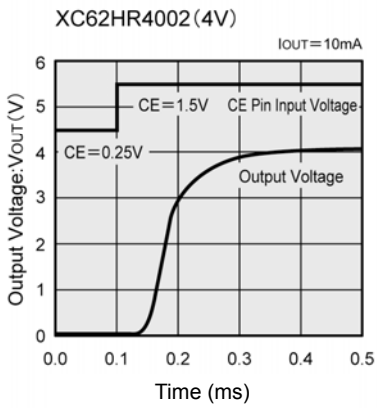
(11) CE Pin Transient Response

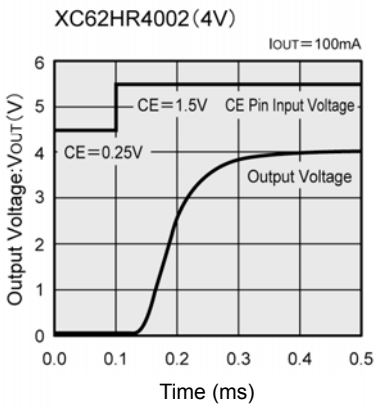






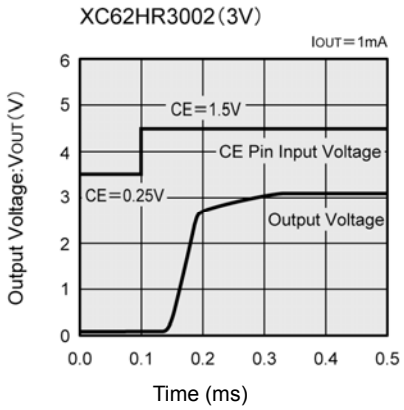


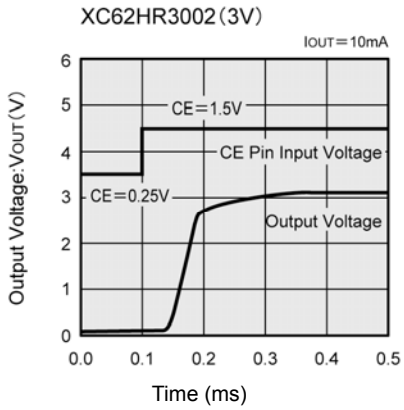


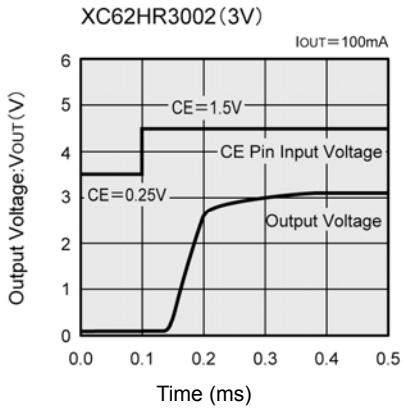


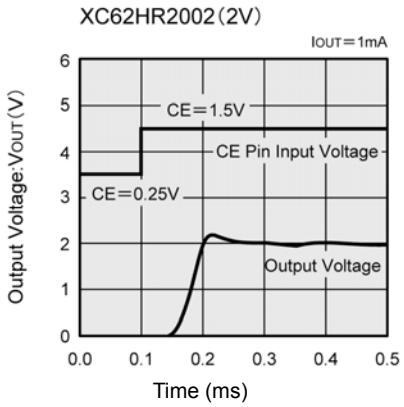
■TYPICAL PERFORMANCE CHARACTERISTICS (Continued)

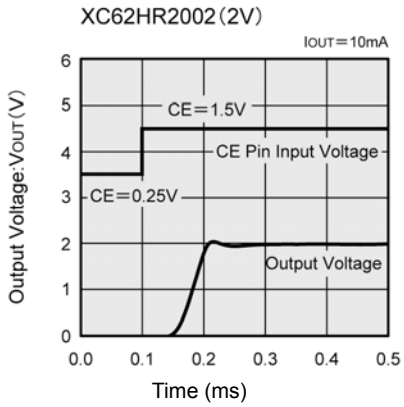
(11) CE Pin Transient Response (Continued)

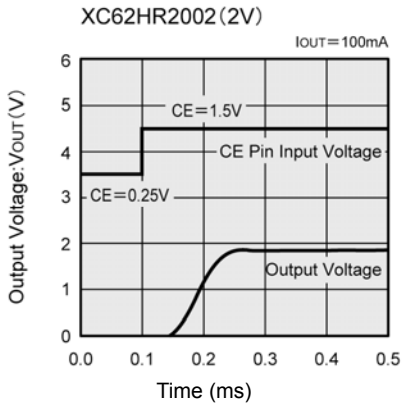




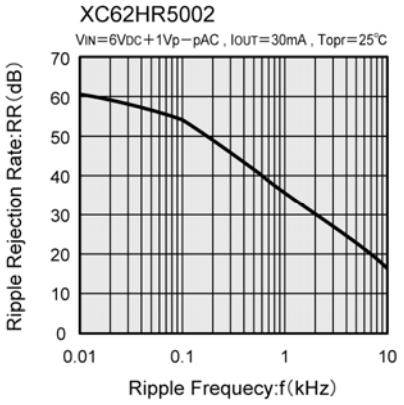


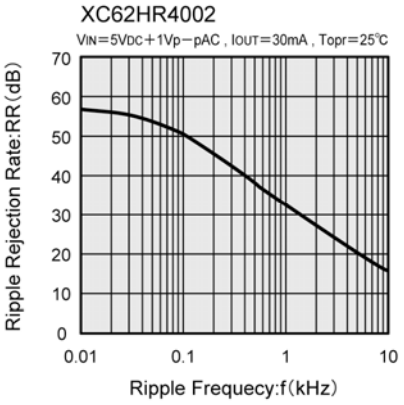


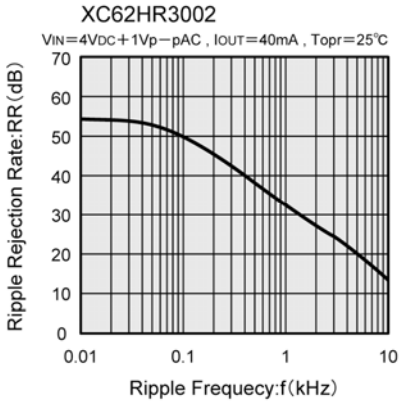




(12) Ripple Rejection Rate



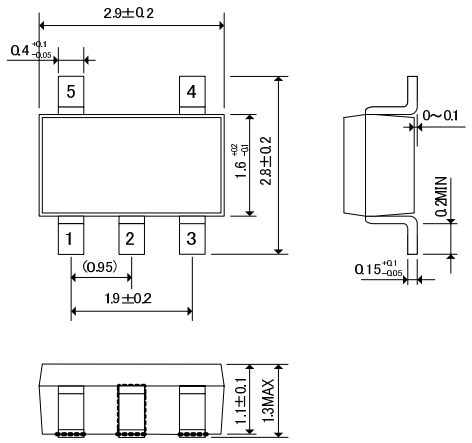




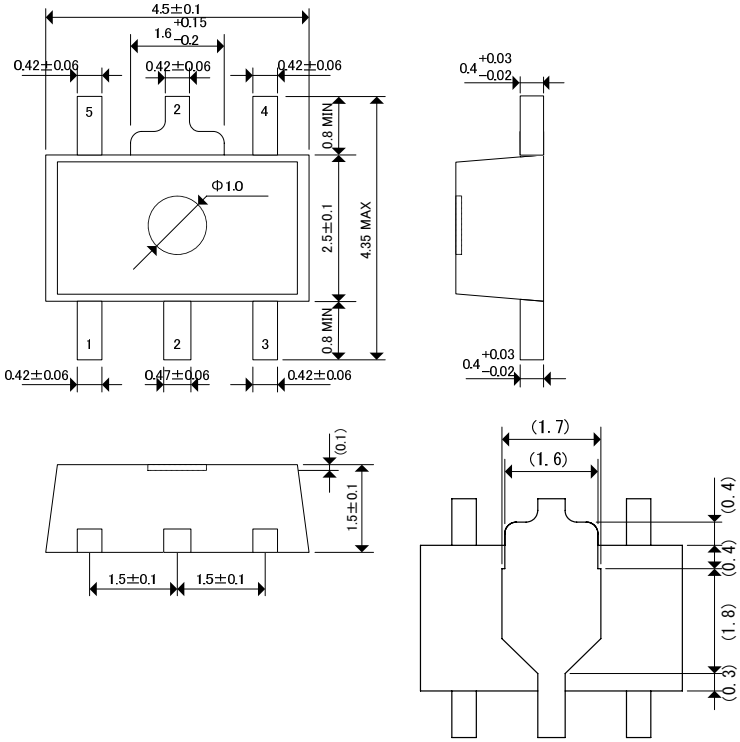
■PACKAGING INFORMATION

●SOT-25

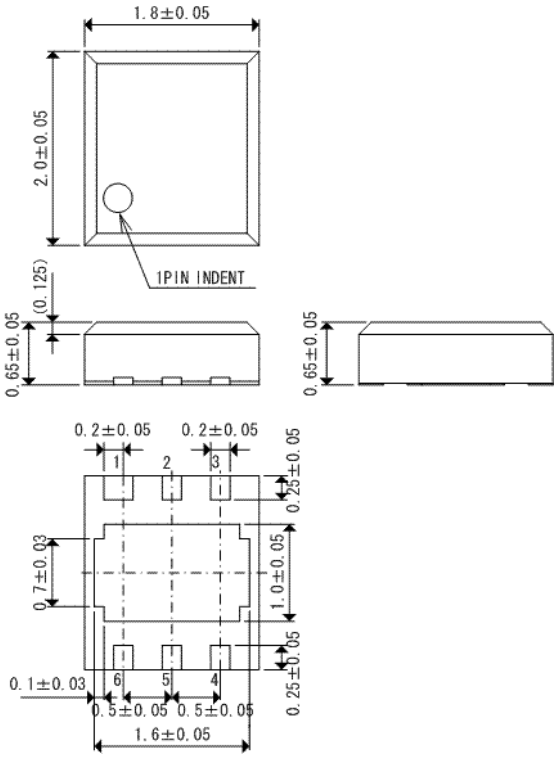
(unit : mm)



●SOT-89-5

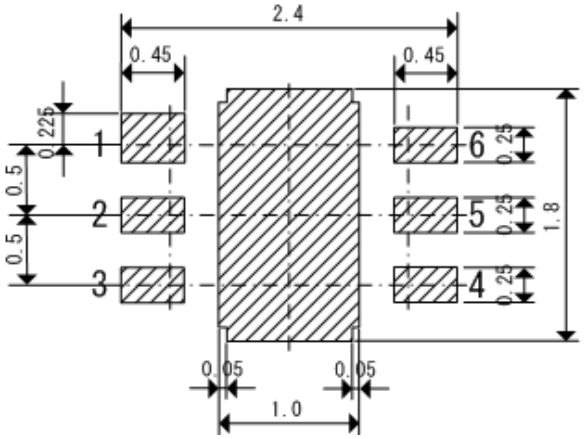


●USP-6B

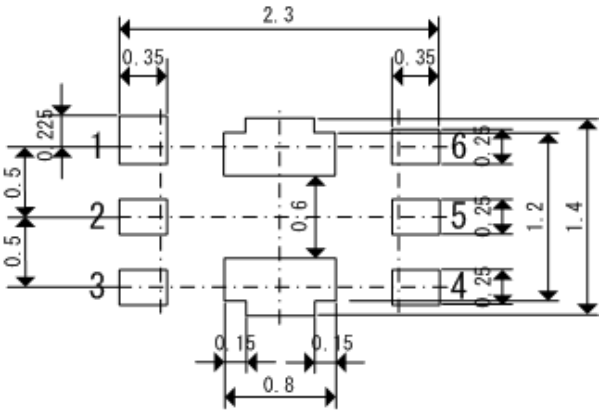


■PACKAGING INFORMATION (Continued)

●USP-6B Reference Pattern Layout

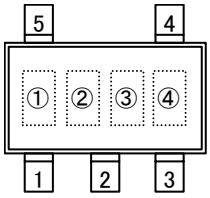


●USP-6B Reference metal mask design

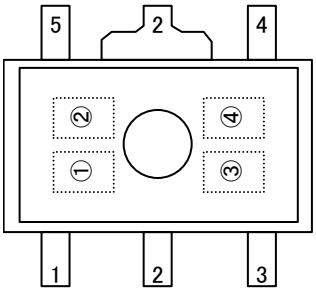


■ MARKING RULE

●SOT-25, SOT-89-5



SOT-25
(TOP VIEW)



SOT-89-5
(TOP VIEW)

① represents integer of the output voltage

MARK	VOLTAGE (V)
0	0.②
1	1.②
2	2.②
3	3.②
4	4.②
5	5.②
6	6.②

② represents decimal number of the output voltage

MARK	VOLTAGE (V)
0	①.0
1	①.1
2	①.2
3	①.3
4	①.4
5	①.5
6	①.6
7	①.7
8	①.8
9	①.9

③ represents temperature characteristics

MARK
-

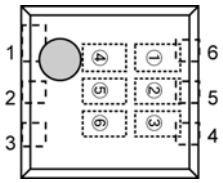
④ represents production lot number
0 to 9, A to Z repeated, reverse character 0 to 9, A to Z repeated
(G, I, J, O, Q, W excluded)

■ MARKING RULE

●USP-6B

① represents product series

MARK	PRODUCT SERIES
H	XC62HR**0*D*



USP-6B
(TOP VIEW)

② represents CE pin logic

MARK	LOGIC	PRODUCT SERIES
R	Positive	XC62HR**0*D*

③④ represents output voltage

ex:

MARK		VOLTAGE(V)	PRODUCT SERIES
③	④		
3	3	3.3	XC62HR330*D*
5	0	5.0	XC62HR500*D*

⑤ represents temperature characteristics

MARK	TEMPERATURE CHARACTERISTICS	PRODUCT SERIES
0	TYP±100ppm	XC62HR**0***

⑥ represents production lot number
0 to 9, A to Z repeated (G, I, J, O, Q, W excluded)
Note: No character inversion used.

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