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RENESAS TECHNICAL UPDATE

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Product Category	MPU/MCU		Document No.	TN-R8C-A014A/E	Rev.	1.00
Title	R8C/1x Series, R8C/2x Series, R8C/3x Series, R8C/Lx Series Note on Supply Voltage Fluctuation		Information Category	Technical Notification		
Applicable Product	See below	Lot No. —	Reference Document	—		

When developing MCU application products, the customer should take care with events like power supply noise in their product and/or environment. The following is a general note pertaining to supply voltage variations due to events like power supply noise.

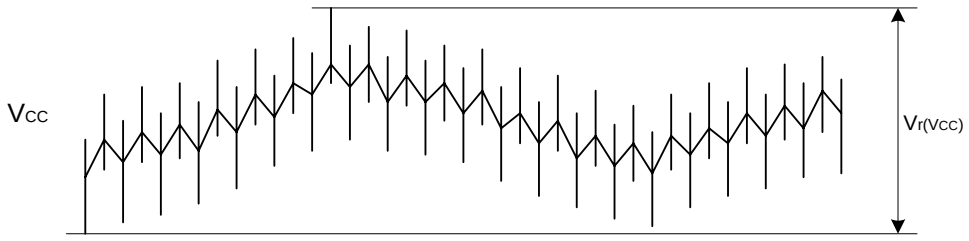
1. Applicable products

   R8C/1x Series, R8C/2x Series, R8C/3x Series, and R8C/Lx Series

2. Note

   After reset is deasserted, the supply voltage applied to the VCC pin must meet either or both the allowable ripple voltage $V_{r(VCC)}$ or ripple voltage falling gradient $dV_{r(VCC)}/dt$ shown in the figure below.

Symbol	Parameter	Standard			Unit
		Min.	Typ.	Max.	
$V_{r(VCC)}$	Allowable ripple voltage			0.1Vcc	V
$dV_{r(VCC)}/dt$	Ripple voltage falling gradient			10	V/ms



To prevent operation error due to noise, connect a bypass capacitor (approximately 0.1 μF) across pins VCC and VSS using the shortest and thickest possible wiring.