



**Electrical Characteristics** (Unless otherwise specified, condition shall be  $V_{IN}=V_O(TYP.)+1V$ ,  $I_O=1A$ ,  $V_C=2.7V$ ,  $T_a=25^\circ C$ )

Parameter	Symbol	Conditions	MIN.	TYP.	MAX.	Unit
Input voltage	$V_{IN}$	-	Refer to the table below			V
Output voltage	$V_O$	-	Refer to the table below			V
Load regulation	$R_{egL}$	$I_O=5mA$ to $2A$	-	0.2	2.0	%
Line regulation	$R_{egI}$	$V_{IN}=V_O(TYP.)+1V$ to $V_O(TYP.)+6V$ , $I_O=5mA$	-	0.1	1.0	%
Temperature coefficient of output voltage	$T_C V_O$	$I_O=5mA$ , $T_j=0$ to $125^\circ C$	-	$\pm 0.01$	-	$\%/^\circ C$
Ripple rejection	RR	Refer to Fig.2	45	60	-	dB
*4 ON-state voltage for control	$V_{C(ON)}$	-	2.0	-	-	V
ON-state current for control	$I_{C(ON)}$	-	-	-	200	$\mu A$
OFF-state voltage for control	$V_{C(OFF)}$	$I_O=0A$	-	-	0.8	V
OFF-state current for control	$I_{C(OFF)}$	$I_O=0A$ , $V_C=0.4V$	-	-	2	$\mu A$
Quiescent current	$I_q$	$I_O=0A$	-	1	2	mA
Output OFF-state dissipation current	$I_{qs}$	$I_O=0A$ , $V_C=0.4V$	-	-	5	$\mu A$

\*4 In case of opening control terminal ②, output voltage turns off.

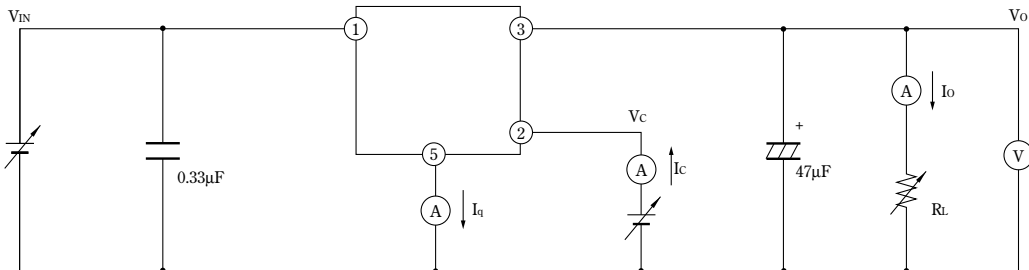
**Input Voltage Line-up**

Model No.	Symbol	Conditions	MIN.	TYP.	MAX.	Unit
PQ015EH02Z	$V_{IN}$	$I_O=1A$ , $V_C=2.7V$ , $T_a=25^\circ C$	2.35	-	10	V
PQ018EH02Z			2.35	-	10	
PQ025EH02Z			3.0	-	10	

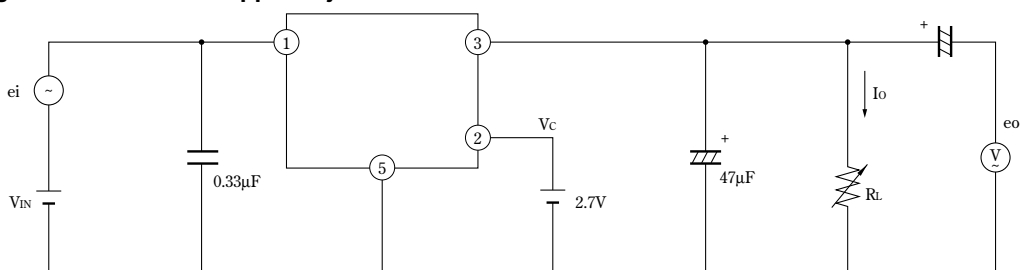
**Output Voltage Line-up**

Model No.	Symbol	Conditions	MIN.	TYP.	MAX.	Unit
PQ015EH02Z	$V_O$	$V_{IN}=V_O(TYP.)+1V$ , $I_O=1A$ , $V_C=2.7V$ , $T_a=25^\circ C$	1.45	1.5	1.55	V
PQ018EH02Z			1.75	1.8	1.85	
PQ025EH02Z			2.438	2.5	2.562	

**Fig.1 Test Circuit**

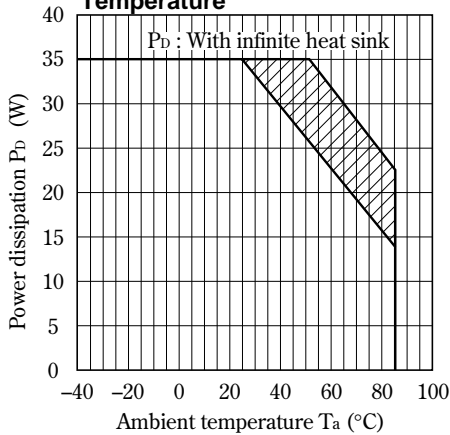


**Fig.2 Test circuit of Ripple Rejection**



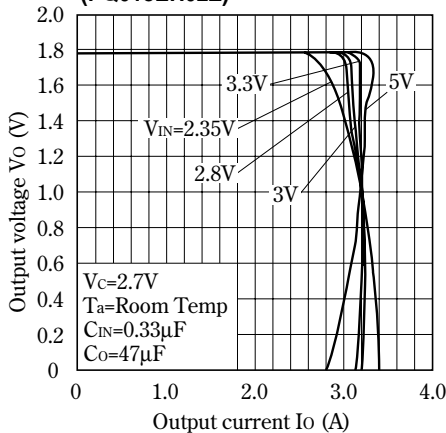
$f=120Hz$ (sine wave)  
 $e_{i(rms)}=0.5V$   
 $V_{IN}=V_O(TYP.)+2V$   
 $I_O=0.3A$   
 $RR=20\log(e_{i(rms)}/e_{o(rms)})$

**Fig.3 Power Dissipation vs. Ambient Temperature**

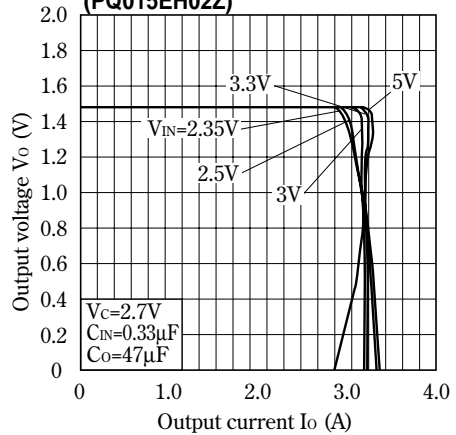


Note) Oblique line portion: Overheat protection may operate in this area.

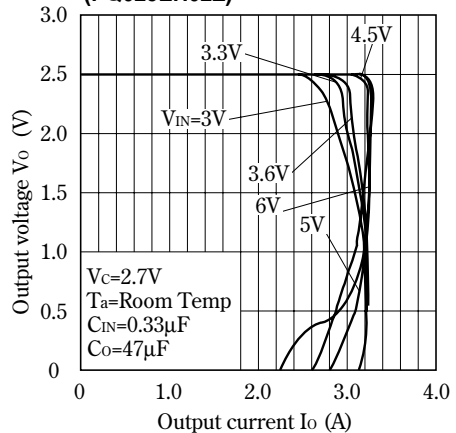
**Fig.5 Overcurrent Protection Characteristics (PQ018EH02Z)**



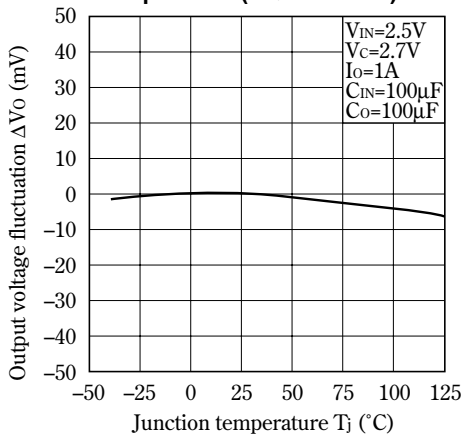
**Fig.4 Overcurrent Protection Characteristics (PQ015EH02Z)**



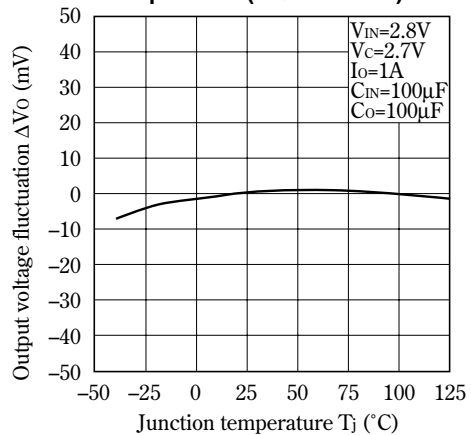
**Fig.6 Overcurrent Protection Characteristics (PQ025EH02Z)**



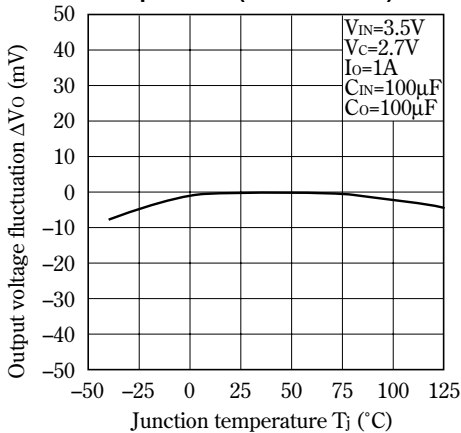
**Fig.7 Output Voltage Fluctuation vs. Junction Temperature (PQ015EH02Z)**



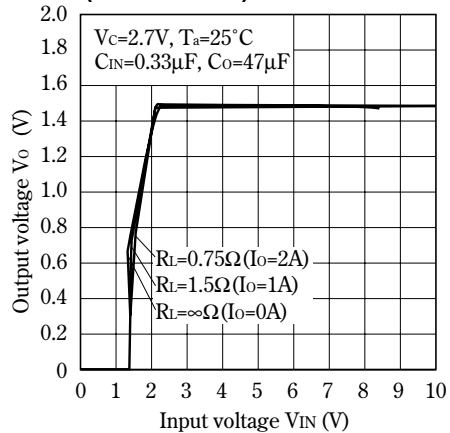
**Fig.8 Output Voltage Fluctuation vs. Junction Temperature (PQ018EH02Z)**



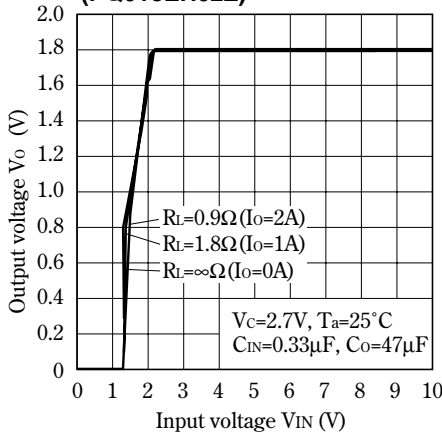
**Fig.9 Output Voltage Fluctuation vs. Junction Temperature (PQ025EH02Z)**



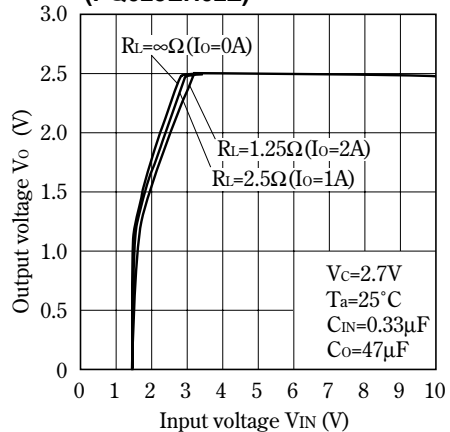
**Fig.10 Output Voltage vs. Input Voltage (PQ015EH02Z)**



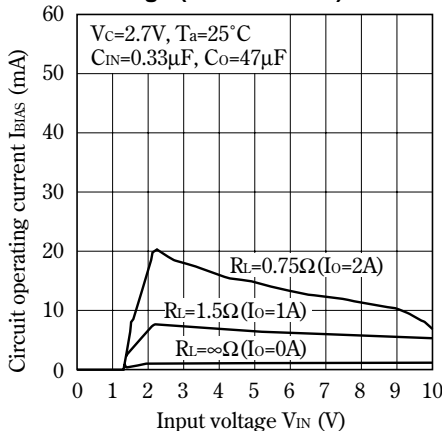
**Fig.11 Output Voltage vs. Input Voltage (PQ018EH02Z)**



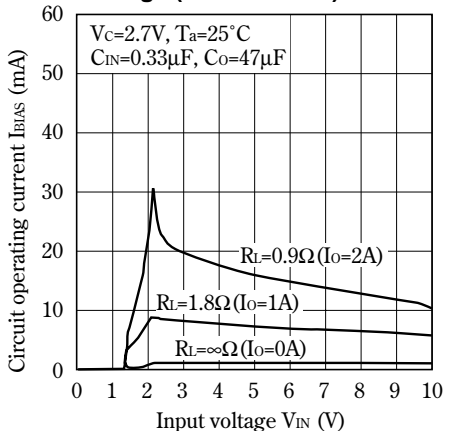
**Fig.12 Output Voltage vs. Input Voltage (PQ025EH02Z)**



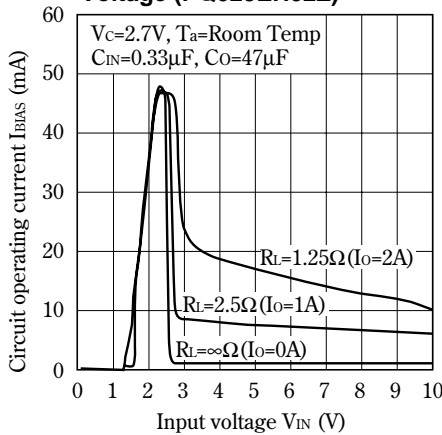
**Fig.13 Circuit Operating Current vs. Input Voltage (PQ015EH02Z)**



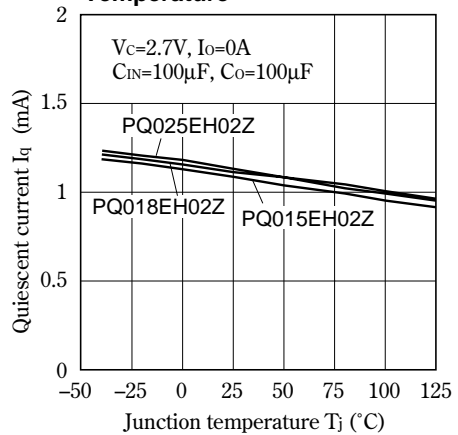
**Fig.14 Circuit Operating Current vs. Input Voltage (PQ018EH02Z)**



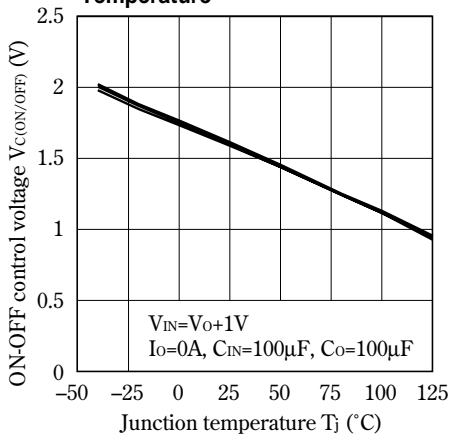
**Fig.15 Circuit Operating Current vs. Input Voltage (PQ025EH02Z)**



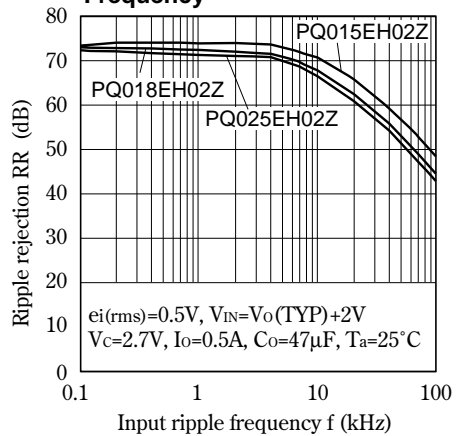
**Fig.16 Quiescent Current vs. Junction Temperature**



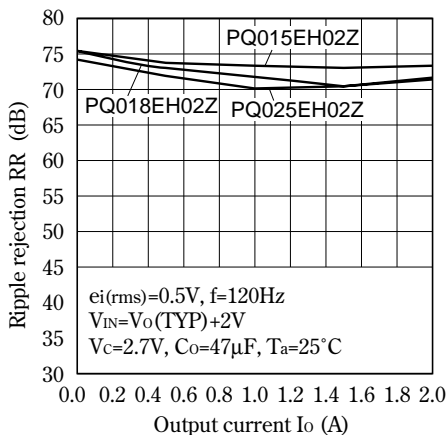
**Fig.17 ON-OFF Control Voltage vs. Junction Temperature**



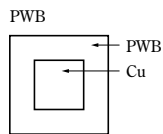
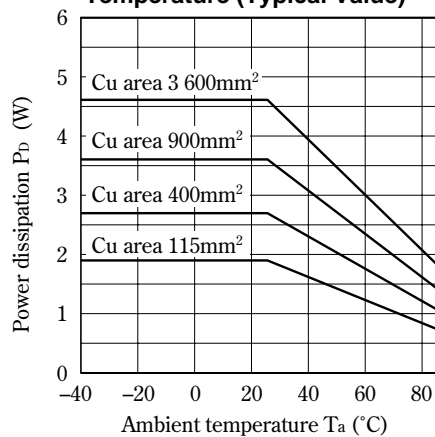
**Fig.18 Ripple Rejection vs. Input Ripple Frequency**



**Fig.19 Ripple Rejection vs. Output Current**



**Fig.20 Power Dissipation vs. Ambient Temperature (Typical Value)**



Material : Glass-cloth epoxy resin  
 Size : 60×60×1.6mm  
 Cu thickness : 65μm

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