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Electrical Characteristics

(Unless otherwise specified, condition shall be $V_{IN}=5V, V_O=3V (R_1=1k\Omega), I_O=1A, T_a=25^\circ C$)

Parameter	Symbol	Conditions	MIN.	TYP.	MAX.	Unit
Input voltage	V_{IN}	-	2.35	-	10	V
Output voltage	V_O	-	1.5	-	7	V
Reference voltage	V_{ref}	-	1.225	1.250	1.275	V
Load regulation	Reg_L	$I_O=5mA$ to 2A	-	0.2	2.0	%
Line regulation	Reg_L	$V_{IN}=4$ to 8V, $I_O=5mA$	-	0.2	1.0	%
Temperature coefficient of reference voltage	$T_C V_{ref}$	$T_j=0$ to $+125^\circ C$, $I_O=5mA$	-	± 1.0	-	%
Ripple rejection	RR	Refer to Fig.2	45	60	-	dB
Dropout voltage	V_{I-O}	$V_{IN}=2.85V$, $I_O=2A$	-	-	0.5	V
ON-state voltage for control	$V_{C(ON)}$	-	2.0	-	-	V
ON-state current for control	$I_{C(ON)}$	-	-	-	200	μA
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	μA
Quiescent current	I_q	$I_O=0A$	-	1	2	mA
Output OFF-state consumption current	I_{qs}	$I_O=0A, V_C=0.4V$	-	-	5	μA

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

Fig.1 Test Circuit

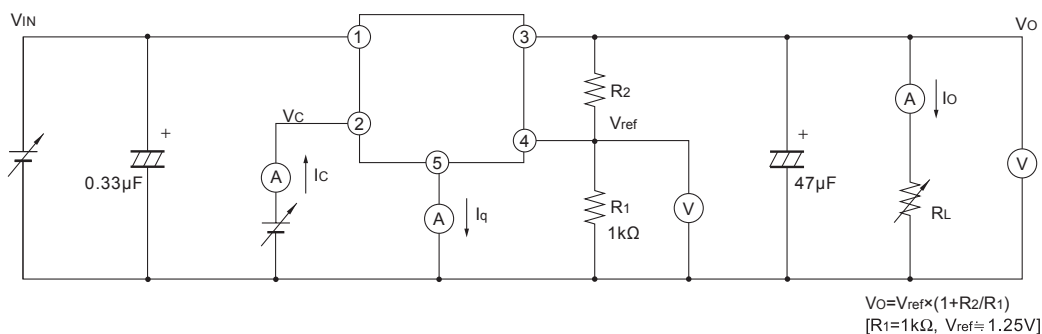


Fig.2 Test Circuit for Ripple Rejection

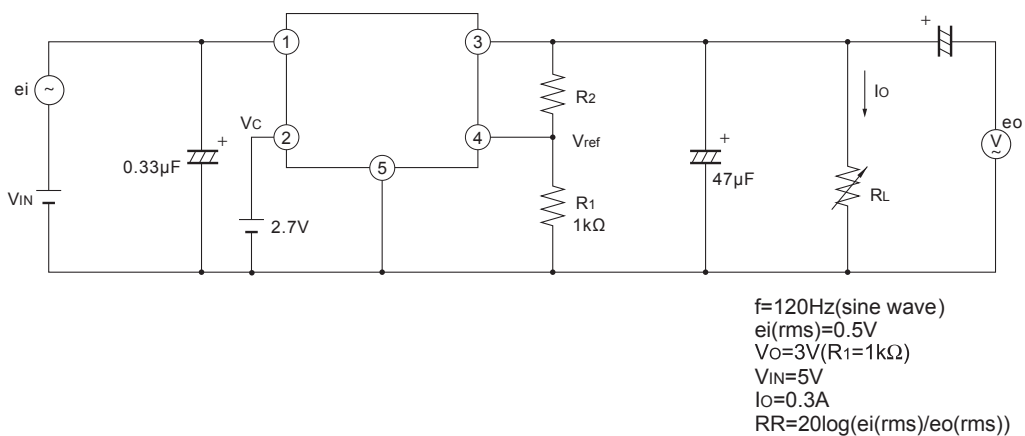
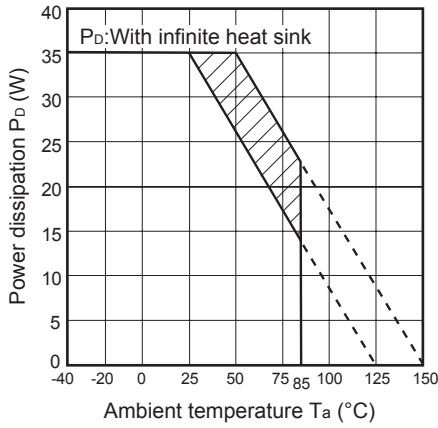


Fig.3 Power Dissipation vs. Ambient Temperature



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

Fig.4 Overcurrent Protection Characteristics

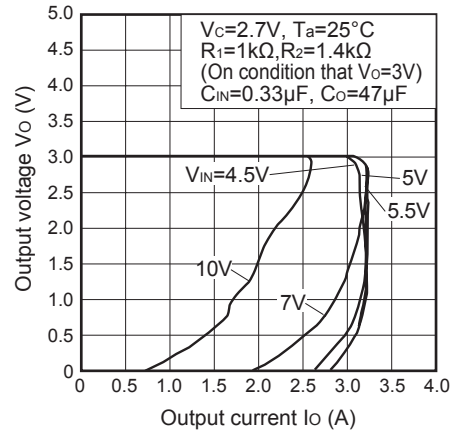


Fig.5 Output Voltage Deviation vs. Junction Temperature

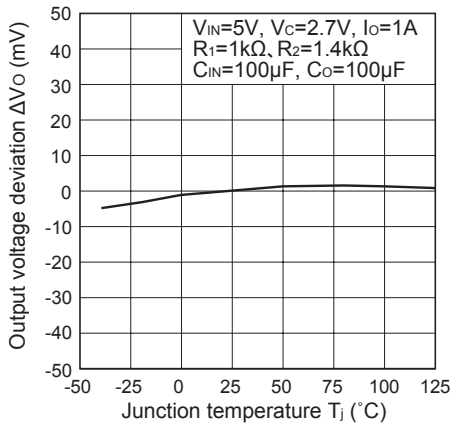


Fig.6 Output Voltage vs. Input Voltage

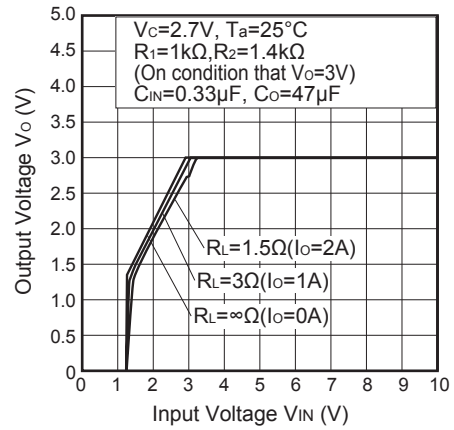


Fig.7 Circuit Operating Current vs. Input Voltage

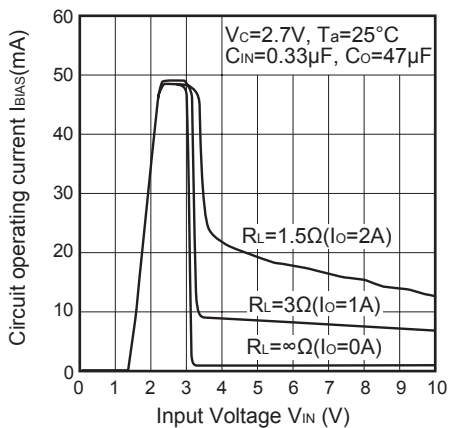


Fig.8 Dropout Voltage vs. Junction Temperature

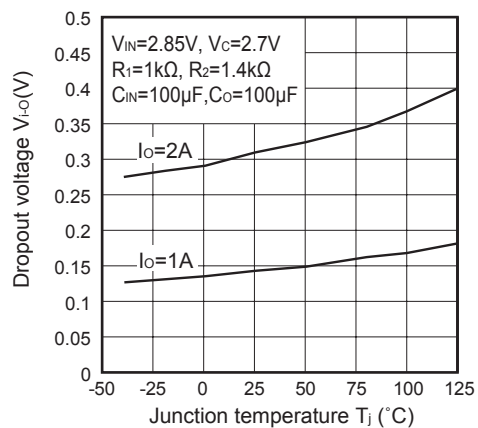


Fig.9 ON-OFF Control Voltage vs. Junction Temperature

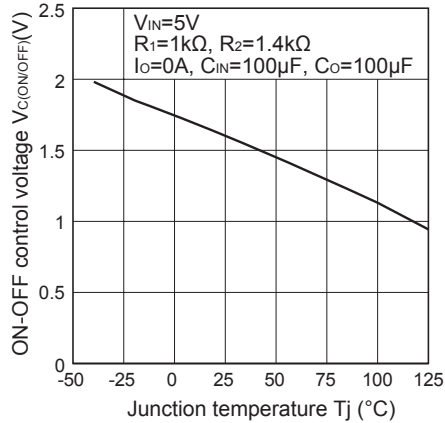


Fig.10 Quiescent Current vs. Junction Temperature

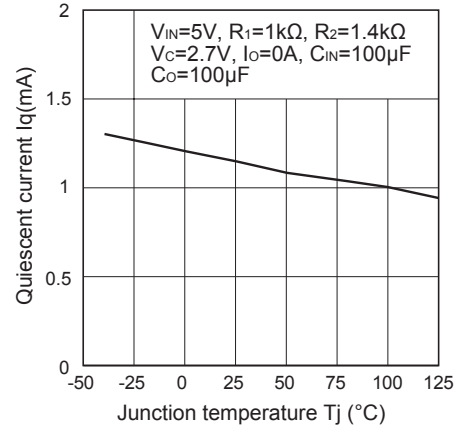


Fig.11 Ripple Rejection vs. Input Ripple Frequency

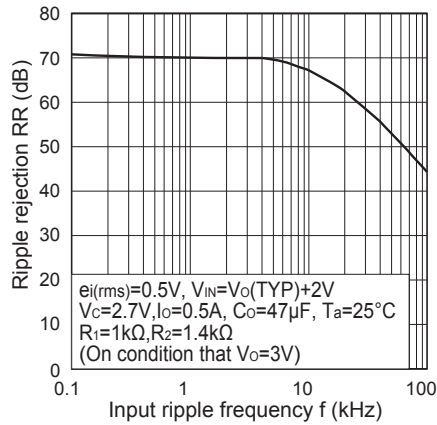


Fig.12 Ripple Rejection vs. Output Current

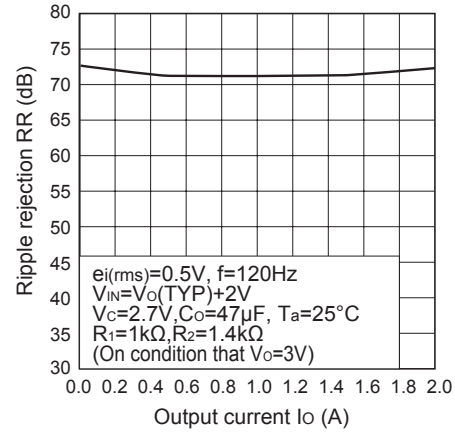
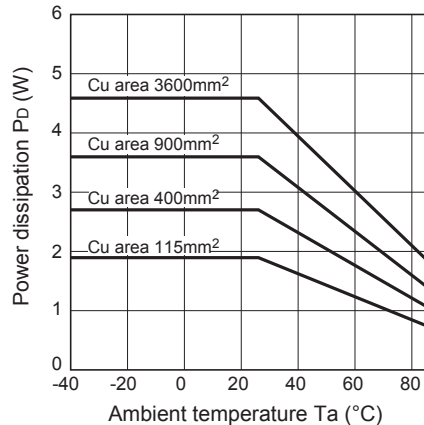
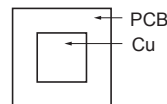


Fig.13 Power Dissipation vs. Ambient Temperature (Typical Value)

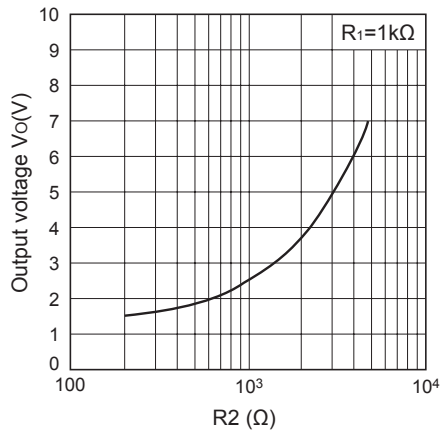


Mounting PCB

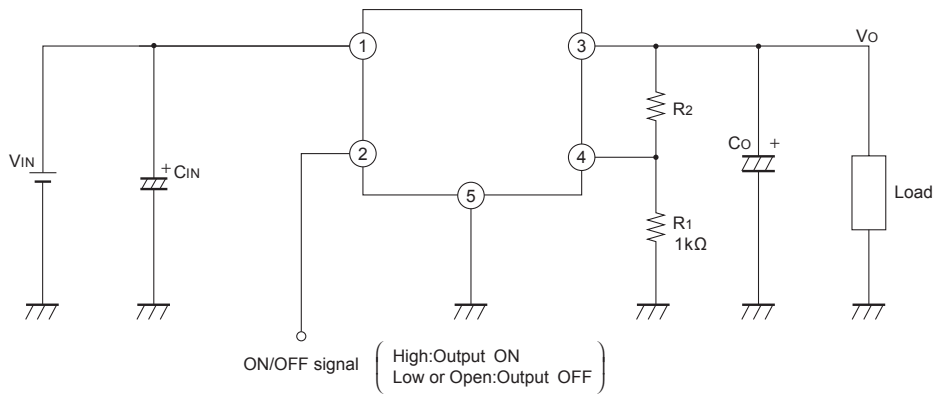


Material : Glass-cloth epoxy resin
 Size : 60×60×1.6mm
 Cu thickness : 65μm

Fig.14 Output Voltage Adjustment Characteristics (Typical value)



■ Typical Application



■ Setting of Output Voltage

Output voltage is able to set from 1.5V to 7V when resistors R₁ and R₂ are attached to ③、④、⑤ terminals. As for the external resistors to set output voltage, refer to the figure below and Fig.14.

