

Electrical Characteristics

(Unless otherwise specified condition shall be $V_{IN}=3.5V, V_O=2.48V(R1=R2=10k\Omega), I_O=30mA, V_C=1.8V, T_a=25^\circ C$)

Parameter	Symbol	Conditions	MIN.	TYP.	MAX.	Unit
Input voltage	V_{IN}	—	2.5	—	15.0	V
Output voltage	V_O	—	V_{ref}	—	9.0	V
Reference voltage	V_{ref}	—	1.215	1.24	1.265	V
Load regulation	Reg_L	$I_O=5$ to $500mA$	—	35	100	mV
Line regulation	Reg_L	$V_{IN}=3.5V$ to $8.5V$	—	6	20	mV
Temperature coefficient of Reference voltage	TcV_{ref}	$I_O=10mA, T_j=0$ to $100^\circ C$	—	± 1.0	—	%
Ripple rejection	RR	Refer to Fig.2	—	50	—	dB
Output noise voltage	$V_{no(rms)}$	$10Hz < f < 100kHz$	—	180	—	μV
Dropout voltage	V_{I-O}	$V_{IN}=3V, I_O=300mA$	—	—	0.7	V
*4 On-state voltage for control	$V_{C(ON)}$	—	1.8	—	—	V
On-state current for control	$I_{C(ON)}$	$V_C=1.8V$	—	5	30	μA
Off-voltage for control	$V_{C(OFF)}$	—	—	—	0.4	V
Quiescent current	I_q	$I_O=0mA$	—	400	700	μA
Output off-state consumption current	I_{qs}	$V_C=0.2V$	—	—	1	μA

*4 In case that the control terminal (③ pin) is non-connection, output voltage should be OFF state.

Fig.1 Standard measuring circuit of Regulator portion

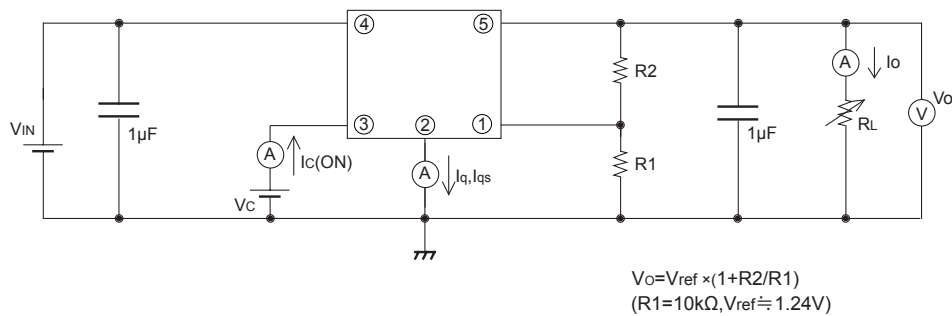


Fig.2 Standard measuring circuit of critical rate of ripple rejection

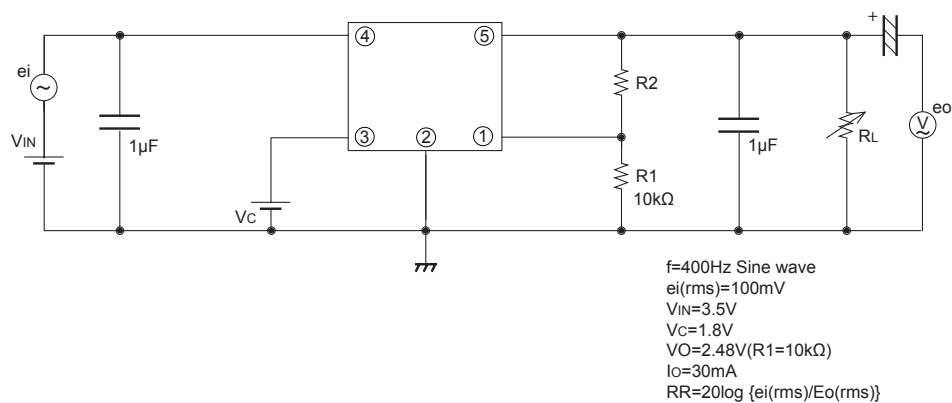
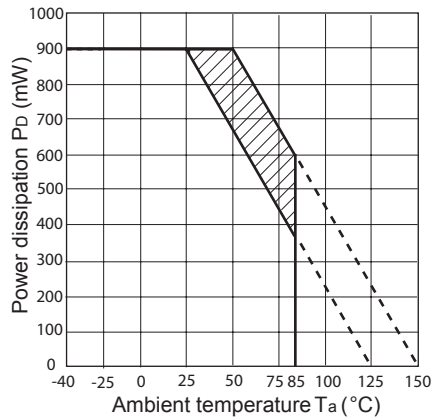
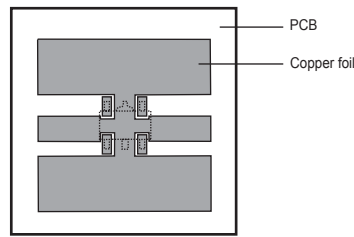


Fig.3 Power Dissipation vs. Ambient Temperature



Mounting PCB



Material : Glass-cloth epoxy resin
 PCB Size : 20mm × 20mm × 1.0mm
 Copper foil area : 180mm²
 Thickness of copper : 35μm

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

Fig.4 Overcurrent Protection Characteristics

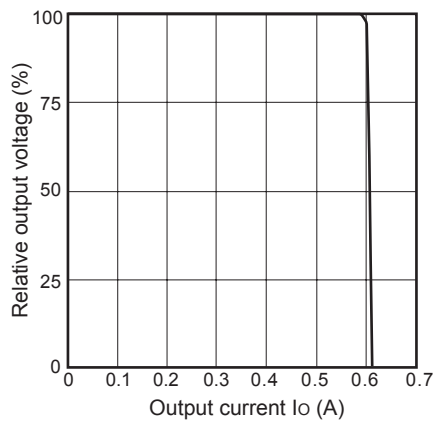


Fig.5 Output Voltage vs. Input Voltage (Typical Value)

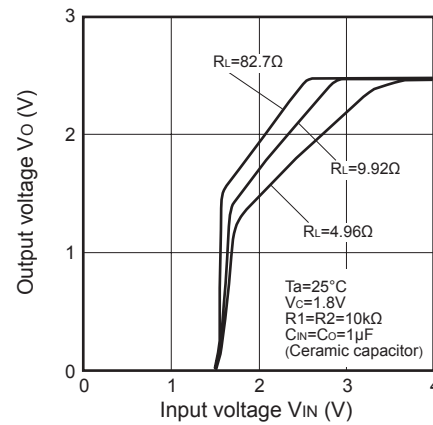


Fig.6 Circuit Operating Current vs. Input Voltage (Typical Value)

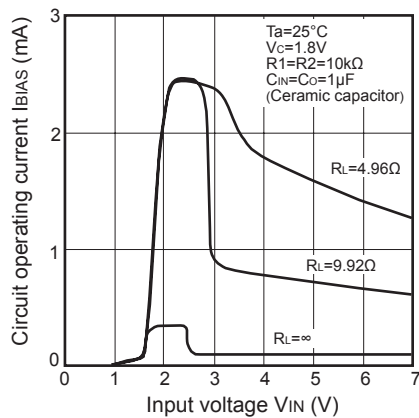


Fig.7 Quiescent Current vs. Junction Temperature (Typical Value)

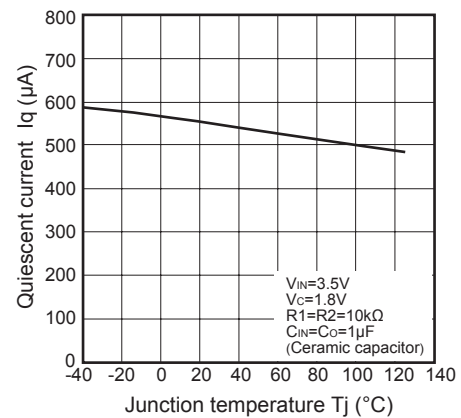


Fig.8 Dropout Voltage vs. Junction Temperature (Typical Value)

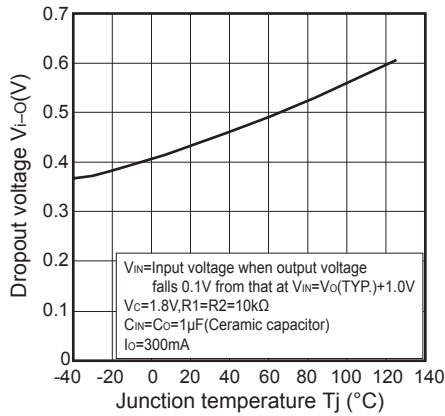


Fig.9 Output Voltage Deviation vs. Junction Temperature (Typical Value)

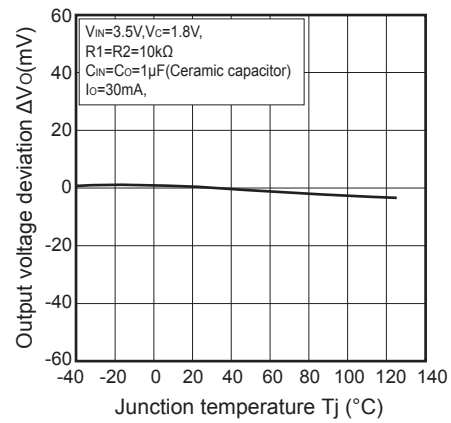


Fig.10 Dropout Voltage vs. Output Current (Typical Value)

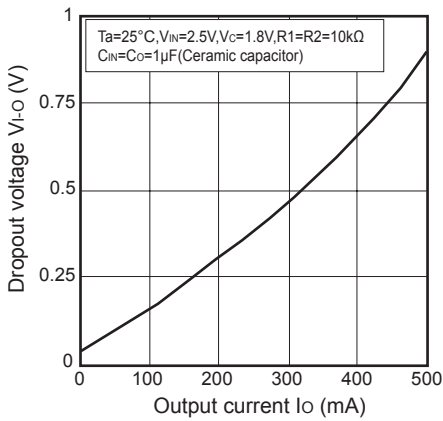


Fig.11 Ripple Rejection vs. Input Ripple Frequency (Typical Value)

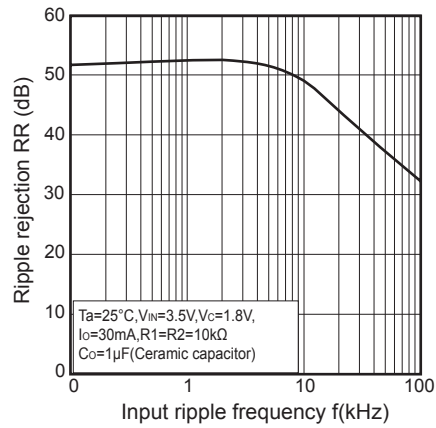
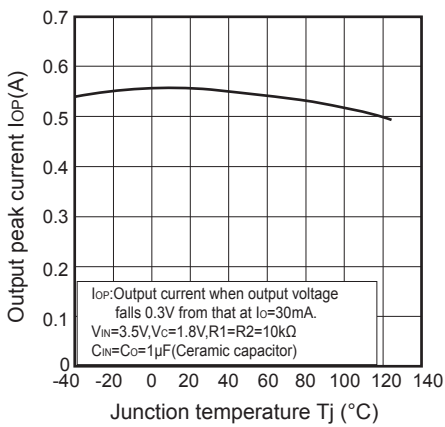


Fig.12 Output Peak Current vs. Junction Temperature (Typical Value)



■ Example of application

