



■ ABSOLUTE MAXIMUM RATINGS

(Ta=25°C)

PARAMETER	SYMBOL	RATINGS	UNIT
Supply Voltage	V <sup>+</sup> /V <sup>-</sup>	40	V
Dropout Voltage	ΔV <sub>IO</sub>	40	V
Differential Input Voltage	V <sub>IN</sub> (diff)	±5	V
Output Current	I <sub>o</sub>	150	mA
Power Dissipation	P <sub>D</sub>	(DIP8) 700	mW
		(DMP8) 700(note)	mW
		(SSOP8) 450(note)	mW
Current from V <sub>REF</sub>	I <sub>REF</sub> (V <sub>REF</sub> )	15	mA
Operating Temperature Range	T <sub>opr</sub>	-20~+75	°C
Storage Temperature Range	T <sub>stg</sub>	-40~+125	°C

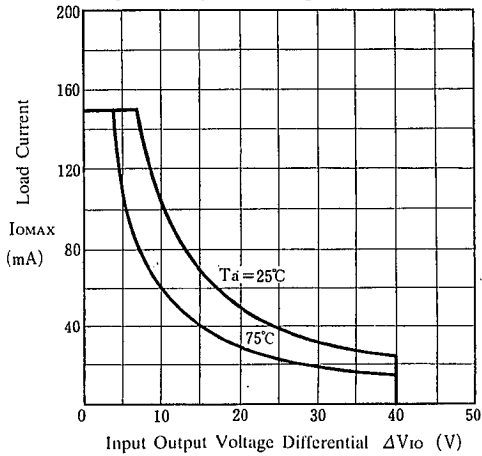
(note) At on PC board

■ ELECTRICAL CHARACTERISTICS (Ta=25°C, V<sup>+</sup>=V<sub>C</sub>=12V, V<sup>-</sup>=0V, V<sub>O</sub>=5V, R<sub>sc</sub>=0, C<sub>I</sub>=100pF, C<sub>REF</sub>=0, I<sub>L</sub>=1mA)

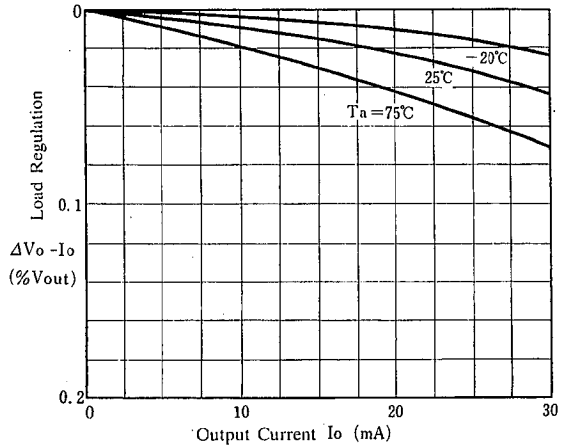
PARAMETER	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Line Regulation	ΔV <sub>O</sub> -V <sub>IN</sub>	V <sub>IN</sub> =12~15V V <sub>IN</sub> =12~40V	—	0.01 0.1	0.1 0.5	%V <sub>OUT</sub> %V <sub>OUT</sub>
Load Regulation	ΔV <sub>O</sub> -I <sub>O</sub>	I <sub>O</sub> =1~50mA	—	0.03	0.2	%V <sub>OUT</sub>
Ripple Rejection	RR	f=50~10kHz, C <sub>REF</sub> =0	—	74	—	dB
		f=50~10kHz, C <sub>REF</sub> =5μF	—	86	—	dB
Average Temperature Coefficient of Output Voltage	ΔV <sub>O</sub> /ΔT	-20≤Ta≤75°C	—	0.003	0.018	%/°C
Short Circuit Current Limit	I <sub>CL</sub>	R <sub>sc</sub> =10Ω, V <sub>OUT</sub> =0	—	65	—	mA
Reference Voltage	V <sub>REF</sub>		6.8	7.15	7.5	V
Output Noise Voltage	V <sub>NO</sub>	BW=100Hz~10kHz, C <sub>RF</sub> =0	—	100	—	μV <sub>rms</sub>
		BW=100Hz~10kHz, C <sub>RF</sub> =5μF	—	2.5	—	μV <sub>rms</sub>
Dropout Voltage	V <sub>IO</sub>		3.0	—	38	V
Standby Current Drain	I <sub>STDBY</sub>	I <sub>L</sub> =0, V <sub>IN</sub> =30V, V <sub>O</sub> =V <sub>REF</sub>	—	2.3	4.0	mA
Input Voltage Range	V <sub>IN</sub>		9.5	—	40	V
Output Voltage Range	V <sub>O</sub>		2.0	—	37	V

## ■ TYPICAL APPLICATION

**Maximum Load Current vs. Input Output Voltage Differential**

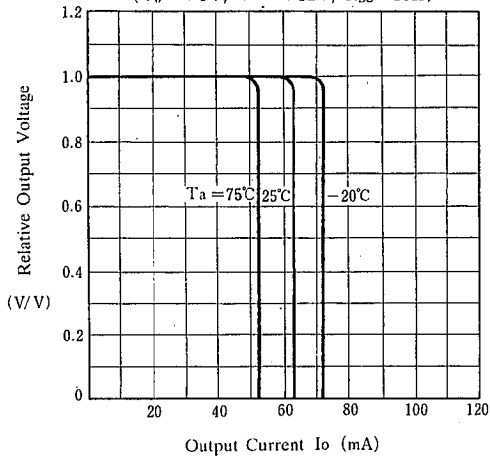


**Load Regulation vs. Output Current**  
( $V_0 = +5V$ ,  $V^+ = +12V$ ,  $R_{SC} = 10\Omega$ )



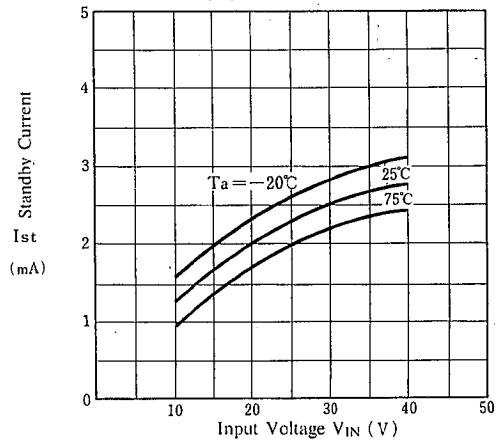
**Relative Output Voltage vs. Output Current**

( $V_0 = +5V$ ,  $V^+ = +12V$ ,  $R_{SC} = 10\Omega$ )

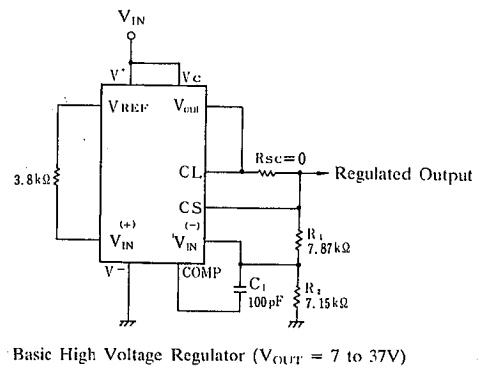
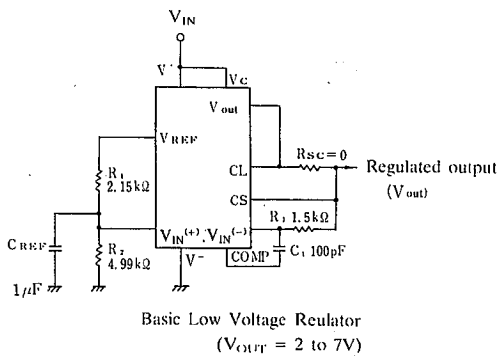


**Standby Current vs. Input Voltage**

( $V_0 = V_{REF}$ ,  $I_0 = 0mA$ )



## ■ TYPICAL CHARACTERISTICS



## MEMO

[CAUTION]

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