

GU78XXA

3-TERMINAL POSITIVE VOLTAGE REGULATORS

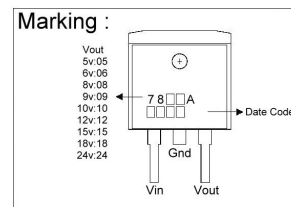
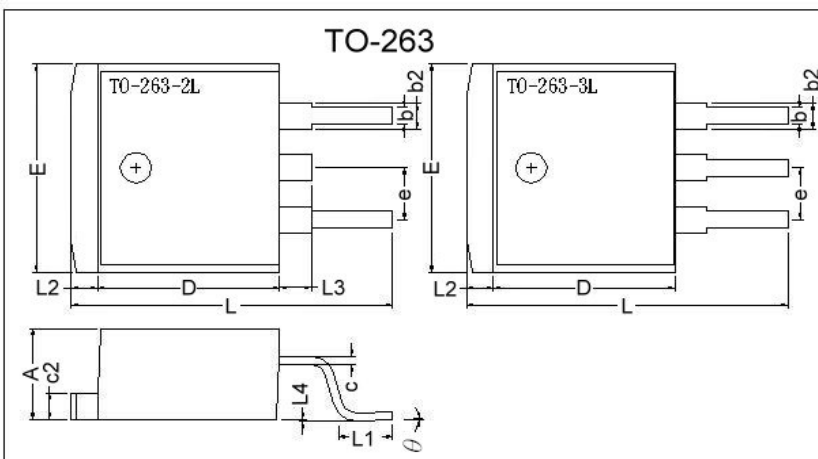
Description

The GU78XXA series of fixed-voltage monolithic integrated-circuit voltage regulators designed for a wide range of applications. These applications include on-card regulation for elimination of noise and distribution problems associated with single-point regulation. Each of these regulators can deliver up to 1.5 amperes of output current. The internal current limiting and thermal shutdown features of these regulators make them essentially immune to overload.

Features

- 5V, 6V, 8V, 9V, 10V, 12V, 15V, 18V, 24V output voltage available
- Internal Thermal Overload Protection
- High Power Dissipation Capability
- Internal Short-Circuit Current Limiting
- No External Components
- Output Transistor Safe-Area Compensation

Package Dimensions



REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	4.40	4.80	c2	1.25	1.45
b	0.76	1.00	b2	1.17	1.47
L4	0.00	0.30	D	8.6	9.0
c	0.36	0.5	e	2.54 REF.	
L3	1.50 REF.		L	14.6	15.8
L1	2.29	2.79	theta	0°	8°
E	9.80	10.4	L2	1.27 REF.	

Absolute Maximum Ratings

Parameter		Ratings	Unit
Input voltage	GU7805A ~ 18A	35V	V
	GU7824A	40V	V
Output current		1.5	A
Operating junction temperature range		0 ~ 150	°C
Storage temperature range		-55 ~ 150	°C
Thermal resistance junction-air (RθJA)		65	°C/W
Thermal resistance junction-cases (RθJC)		5	°C/W

Electrical Characteristics

GU7805A (Refer to the test circuits, $T_j=0\sim 125^\circ\text{C}$, $I_o=500\text{mA}$, $V_{in}=10\text{V}$, $C_{in}=0.33\mu\text{F}$, $C_o=0.1\mu\text{F}$ unless otherwise specified)

Symbol		Min.	Typ.	Max.	Unit	Test Conditions
VO	A-Rank (3%)	4.85	5.0	5.15	V	$V_{in}=10\text{V}$, $I_o=500\text{mA}$, $T_j=25^\circ\text{C}$ $7.5\text{V} \leq V_{in} \leq 20\text{V}$, $5\text{mA} \leq I_o \leq 1\text{A}$, $PD \leq 15\text{W}$
	B-Rank (5%)	4.75	-	5.25		
ΔVO (Line Regulation)		-	3	100	mV	$7\text{V} \leq V_{in} \leq 25\text{V}$, $I_o=500\text{mA}$, $T_j=25^\circ\text{C}$
		-	1	50		$8\text{V} \leq V_{in} \leq 12\text{V}$, $I_o=500\text{mA}$, $T_j=25^\circ\text{C}$
ΔVO (Load Regulation)		-	15	100	mV	$V_{in}=10\text{V}$, $5\text{mA} \leq I_o \leq 1.5\text{A}$, $T_j=25^\circ\text{C}$
		-	5	50		$V_{in}=10\text{V}$, $250\text{mA} \leq I_o \leq 750\text{mA}$, $T_j=25^\circ\text{C}$
IQ		-	4.2	8.0	mA	$V_{in}=10\text{V}$, $I_o=500\text{mA}$, $T_j=25^\circ\text{C}$
ΔIQ		-	-	0.5	mA	$V_{in}=10\text{V}$, $5\text{mA} \leq I_o \leq 1\text{A}$
		-	-	1.3		$7\text{V} \leq V_{in} \leq 25\text{V}$, $I_o=500\text{mA}$
Vn		-	40	-	μV	$10\text{Hz} \leq f \leq 100\text{KHz}$, $T_j=25^\circ\text{C}$
RR		62	-	-	dB	$8\text{V} \leq V_{in} \leq 18\text{V}$, $f=120\text{Hz}$, $T_j=25^\circ\text{C}$
VD		-	2.0	-	V	$I_o=1\text{A}$, $T_j=25^\circ\text{C}$
Isc		-	750	-	mA	$V_{in}=10\text{V}$, $T_j=25^\circ\text{C}$
Ipk		-	2.2	-	A	$T_j=25^\circ\text{C}$
$\Delta Vo / \Delta Tj$		-	-1.1	-	$\text{mV}/^\circ\text{C}$	$I_o=5\text{mA}$, $0^\circ\text{C} \leq T_j \leq 125^\circ\text{C}$

GU7806A (Refer to the test circuits, $T_j=0\sim 125^\circ\text{C}$, $I_o=500\text{mA}$, $V_{in}=11\text{V}$, $C_{in}=0.33\mu\text{F}$, $C_o=0.1\mu\text{F}$ unless otherwise specified)

Symbol		Min.	Typ.	Max.	Unit	Test Conditions
VO	A-Rank (3%)	5.82	6.0	6.18	V	$V_{in}=11\text{V}$, $I_o=500\text{mA}$, $T_j=25^\circ\text{C}$ $8\text{V} \leq V_{in} \leq 21\text{V}$, $5\text{mA} \leq I_o \leq 1\text{A}$, $PD \leq 15\text{W}$
	B-Rank (5%)	5.70	-	6.30		
ΔVO (Line Regulation)		-	5	120	mV	$8\text{V} \leq V_{in} \leq 25\text{V}$, $I_o=500\text{mA}$, $T_j=25^\circ\text{C}$
		-	1.5	60		$9\text{V} \leq V_{in} \leq 13\text{V}$, $I_o=500\text{mA}$, $T_j=25^\circ\text{C}$
ΔVO (Load Regulation)		-	14	120	mV	$V_{in}=11\text{V}$, $5\text{mA} \leq I_o \leq 1.5\text{A}$, $T_j=25^\circ\text{C}$
		-	4	60		$V_{in}=11\text{V}$, $250\text{mA} \leq I_o \leq 750\text{mA}$, $T_j=25^\circ\text{C}$
IQ		-	4.3	8.0	mA	$V_{in}=11\text{V}$, $I_o=500\text{mA}$, $T_j=25^\circ\text{C}$
ΔIQ		-	-	0.5	mA	$V_{in}=11\text{V}$, $5\text{mA} \leq I_o \leq 1\text{A}$
		-	-	1.3		$8\text{V} \leq V_{in} \leq 25\text{V}$, $I_o=500\text{mA}$
Vn		-	45	-	μV	$10\text{Hz} \leq f \leq 100\text{KHz}$, $T_j=25^\circ\text{C}$
RR		59	-	-	dB	$9\text{V} \leq V_{in} \leq 19\text{V}$, $f=120\text{Hz}$, $T_j=25^\circ\text{C}$
VD		-	2.0	-	V	$I_o=1\text{A}$, $T_j=25^\circ\text{C}$
Isc		-	550	-	mA	$V_{in}=11\text{V}$, $T_j=25^\circ\text{C}$
Ipk		-	2.2	-	A	$T_j=25^\circ\text{C}$
$\Delta Vo / \Delta Tj$		-	-0.8	-	$\text{mV}/^\circ\text{C}$	$I_o=5\text{mA}$, $0^\circ\text{C} \leq T_j \leq 125^\circ\text{C}$

GU7808A (Refer to the test circuits, $T_j=0\sim 125^\circ\text{C}$, $I_o=500\text{mA}$, $V_{in}=14\text{V}$, $C_{in}=0.33\mu\text{F}$, $C_o=0.1\mu\text{F}$ unless otherwise specified)

Symbol		Min.	Typ.	Max.	Unit	Test Conditions
VO	A-Rank (3%)	7.76	8.0	8.24	V	$V_{in}=14\text{V}$, $I_o=500\text{mA}$, $T_j=25^\circ\text{C}$ $10.5\text{V} \leq V_{in} \leq 23\text{V}$, $5\text{mA} \leq I_o \leq 1\text{A}$, $PD \leq 15\text{W}$
	B-Rank (5%)	7.60	-	8.40		
ΔVO (Line Regulation)		-	6	160	mV	$10.5\text{V} \leq V_{in} \leq 25\text{V}$, $I_o=500\text{mA}$, $T_j=25^\circ\text{C}$
		-	2	80		$11\text{V} \leq V_{in} \leq 17\text{V}$, $I_o=500\text{mA}$, $T_j=25^\circ\text{C}$
ΔVO (Load Regulation)		-	12	160	mV	$V_{in}=14\text{V}$, $5\text{mA} \leq I_o \leq 1.5\text{A}$, $T_j=25^\circ\text{C}$
		-	4	80		$V_{in}=14\text{V}$, $250\text{mA} \leq I_o \leq 750\text{mA}$, $T_j=25^\circ\text{C}$
IQ		-	4.3	8.0	mA	$V_{in}=14\text{V}$, $I_o=500\text{mA}$, $T_j=25^\circ\text{C}$
ΔIQ		-	-	0.5	mA	$V_{in}=14\text{V}$, $5\text{mA} \leq I_o \leq 1\text{A}$
		-	-	1.0		$10.5\text{V} \leq V_{in} \leq 25\text{V}$, $I_o=500\text{mA}$
Vn		-	52	-	μV	$10\text{Hz} \leq f \leq 100\text{KHz}$, $T_j=25^\circ\text{C}$
RR		55	-	-	dB	$11.5\text{V} \leq V_{in} \leq 21.5\text{V}$, $f=120\text{Hz}$, $T_j=25^\circ\text{C}$
VD		-	2.0	-	V	$I_o=1\text{A}$, $T_j=25^\circ\text{C}$
Isc		-	450	-	mA	$V_{in}=14\text{V}$, $T_j=25^\circ\text{C}$
Ipk		-	2.2	-	A	$T_j=25^\circ\text{C}$
$\Delta V_o / \Delta T_j$		-	-0.8	-	$\text{mV}/^\circ\text{C}$	$I_o=5\text{mA}$, $0^\circ\text{C} \leq T_j \leq 125^\circ\text{C}$

GU7809A (Refer to the test circuits, $T_j=0\sim 125^\circ\text{C}$, $I_o=500\text{mA}$, $V_{in}=16\text{V}$, $C_{in}=0.33\mu\text{F}$, $C_o=0.1\mu\text{F}$ unless otherwise specified)

Symbol		Min.	Typ.	Max.	Unit	Test Conditions
VO	A-Rank (3%)	8.73	9.0	9.27	V	$V_{in}=16\text{V}$, $I_o=500\text{mA}$, $T_j=25^\circ\text{C}$ $11.5\text{V} \leq V_{in} \leq 24\text{V}$, $5\text{mA} \leq I_o \leq 1\text{A}$, $PD \leq 15\text{W}$
	B-Rank (5%)	8.55	-	9.45		
ΔVO (Line Regulation)		-	7	180	mV	$11.5\text{V} \leq V_{in} \leq 27\text{V}$, $I_o=500\text{mA}$, $T_j=25^\circ\text{C}$
		-	2	90		$13\text{V} \leq V_{in} \leq 19\text{V}$, $I_o=500\text{mA}$, $T_j=25^\circ\text{C}$
ΔVO (Load Regulation)		-	12	180	mV	$V_{in}=16\text{V}$, $5\text{mA} \leq I_o \leq 1.5\text{A}$, $T_j=25^\circ\text{C}$
		-	4	90		$V_{in}=16\text{V}$, $250\text{mA} \leq I_o \leq 750\text{mA}$, $T_j=25^\circ\text{C}$
IQ		-	4.3	8.0	mA	$V_{in}=16\text{V}$, $I_o=500\text{mA}$, $T_j=25^\circ\text{C}$
ΔIQ		-	-	0.5	mA	$V_{in}=16\text{V}$, $5\text{mA} \leq I_o \leq 1\text{A}$
		-	-	1.0		$11.5\text{V} \leq V_{in} \leq 27\text{V}$, $I_o=500\text{mA}$
Vn		-	60	-	μV	$10\text{Hz} \leq f \leq 100\text{KHz}$, $T_j=25^\circ\text{C}$
RR		55	-	-	dB	$12\text{V} \leq V_{in} \leq 22\text{V}$, $f=120\text{Hz}$, $T_j=25^\circ\text{C}$
VD		-	2.0	-	V	$I_o=1\text{A}$, $T_j=25^\circ\text{C}$
Isc		-	400	-	mA	$V_{in}=16\text{V}$, $T_j=25^\circ\text{C}$
Ipk		-	2.2	-	A	$T_j=25^\circ\text{C}$
$\Delta V_o / \Delta T_j$		-	-1.0	-	$\text{mV}/^\circ\text{C}$	$I_o=5\text{mA}$, $0^\circ\text{C} \leq T_j \leq 125^\circ\text{C}$

GU7810A (Refer to the test circuits, $T_j=0\sim 125^\circ\text{C}$, $I_o=500\text{mA}$, $V_{in}=17\text{V}$, $C_{in}=0.33\mu\text{F}$, $C_o=0.1\mu\text{F}$ unless otherwise specified)

Symbol		Min.	Typ.	Max.	Unit	Test Conditions
VO	A-Rank (3%)	9.70	10.0	10.30	V	$V_{in}=17\text{V}$, $I_o=500\text{mA}$, $T_j=25^\circ\text{C}$ $12.5\text{V} \leq V_{in} \leq 25\text{V}$, $5\text{mA} \leq I_o \leq 1\text{A}$, $PD \leq 15\text{W}$
	B-Rank (5%)	9.50	-	10.50		
ΔVO (Line Regulation)		-	7	200	mV	$12.5\text{V} \leq V_{in} \leq 28\text{V}$, $I_o=500\text{mA}$, $T_j=25^\circ\text{C}$
		-	2	100		$14\text{V} \leq V_{in} \leq 20\text{V}$, $I_o=500\text{mA}$, $T_j=25^\circ\text{C}$
ΔVO (Load Regulation)		-	12	200	mV	$V_{in}=17\text{V}$, $5\text{mA} \leq I_o \leq 1.5\text{A}$, $T_j=25^\circ\text{C}$
		-	4	100		$V_{in}=17\text{V}$, $250\text{mA} \leq I_o \leq 750\text{mA}$, $T_j=25^\circ\text{C}$
IQ		-	4.3	8.0	mA	$V_{in}=17\text{V}$, $I_o=500\text{mA}$, $T_j=25^\circ\text{C}$
ΔIQ		-	-	0.5	mA	$V_{in}=17\text{V}$, $5\text{mA} \leq I_o \leq 1\text{A}$
		-	-	1.0		$12.5\text{V} \leq V_{in} \leq 28\text{V}$, $I_o=500\text{mA}$
Vn		-	70	-	μV	$10\text{Hz} \leq f \leq 100\text{KHz}$, $T_j=25^\circ\text{C}$
RR		55	-	-	dB	$13\text{V} \leq V_{in} \leq 23\text{V}$, $f=120\text{Hz}$, $T_j=25^\circ\text{C}$
VD		-	2.0	-	V	$I_o=1\text{A}$, $T_j=25^\circ\text{C}$
Isc		-	400	-	mA	$V_{in}=17\text{V}$, $T_j=25^\circ\text{C}$
Ipk		-	2.2	-	A	$T_j=25^\circ\text{C}$
$\Delta Vo / \Delta Tj$		-	-1.0	-	$\text{mV}/^\circ\text{C}$	$I_o=5\text{mA}$, $0^\circ\text{C} \leq T_j \leq 125^\circ\text{C}$

GU7812A (Refer to the test circuits, $T_j=0\sim 125^\circ\text{C}$, $I_o=500\text{mA}$, $V_{in}=19\text{V}$, $C_{in}=0.33\mu\text{F}$, $C_o=0.1\mu\text{F}$ unless otherwise specified)

Symbol		Min.	Typ.	Max.	Unit	Test Conditions
VO	A-Rank (3%)	11.64	12.0	12.36	V	$V_{in}=19\text{V}$, $I_o=500\text{mA}$, $T_j=25^\circ\text{C}$ $14.5\text{V} \leq V_{in} \leq 27\text{V}$, $5\text{mA} \leq I_o \leq 1\text{A}$, $PD \leq 15\text{W}$
	B-Rank (5%)	11.40	-	12.60		
ΔVO (Line Regulation)		-	10	240	mV	$14.5\text{V} \leq V_{in} \leq 30\text{V}$, $I_o=500\text{mA}$, $T_j=25^\circ\text{C}$
		-	3	120		$16\text{V} \leq V_{in} \leq 22\text{V}$, $I_o=500\text{mA}$, $T_j=25^\circ\text{C}$
ΔVO (Load Regulation)		-	12	240	mV	$V_{in}=19\text{V}$, $5\text{mA} \leq I_o \leq 1.5\text{A}$, $T_j=25^\circ\text{C}$
		-	4	120		$V_{in}=19\text{V}$, $250\text{mA} \leq I_o \leq 750\text{mA}$, $T_j=25^\circ\text{C}$
IQ		-	4.3	8.0	mA	$V_{in}=19\text{V}$, $I_o=500\text{mA}$, $T_j=25^\circ\text{C}$
ΔIQ		-	-	0.5	mA	$V_{in}=19\text{V}$, $5\text{mA} \leq I_o \leq 1\text{A}$
		-	-	1.0		$14.5\text{V} \leq V_{in} \leq 30\text{V}$, $I_o=500\text{mA}$
Vn		-	75	-	μV	$10\text{Hz} \leq f \leq 100\text{KHz}$, $T_j=25^\circ\text{C}$
RR		55	-	-	dB	$15\text{V} \leq V_{in} \leq 25\text{V}$, $f=120\text{Hz}$, $T_j=25^\circ\text{C}$
VD		-	2.0	-	V	$I_o=1\text{A}$, $T_j=25^\circ\text{C}$
Isc		-	350	-	mA	$V_{in}=19\text{V}$, $T_j=25^\circ\text{C}$
Ipk		-	2.2	-	A	$T_j=25^\circ\text{C}$
$\Delta Vo / \Delta Tj$		-	-1.0	-	$\text{mV}/^\circ\text{C}$	$I_o=5\text{mA}$, $0^\circ\text{C} \leq T_j \leq 125^\circ\text{C}$

GU7815A (Refer to the test circuits, $T_j=0\sim 125^\circ\text{C}$, $I_o=500\text{mA}$, $V_{in}=23\text{V}$, $C_{in}=0.33\mu\text{F}$, $C_o=0.1\mu\text{F}$ unless otherwise specified)

Symbol		Min.	Typ.	Max.	Unit	Test Conditions
VO	A-Rank (3%)	14.55	15.0	15.45	V	$V_{in}=23\text{V}$, $I_o=500\text{mA}$, $T_j=25^\circ\text{C}$ $17.5\text{V} \leq V_{in} \leq 30\text{V}$, $5\text{mA} \leq I_o \leq 1\text{A}$, $PD \leq 15\text{W}$
	B-Rank (5%)	14.25	-	15.75		
ΔVO (Line Regulation)		-	12	300	mV	$17.5\text{V} \leq V_{in} \leq 30\text{V}$, $I_o=500\text{mA}$, $T_j=25^\circ\text{C}$
		-	3	150		$20\text{V} \leq V_{in} \leq 26\text{V}$, $I_o=500\text{mA}$, $T_j=25^\circ\text{C}$
ΔVO (Load Regulation)		-	12	300	mV	$V_{in}=23\text{V}$, $5\text{mA} \leq I_o \leq 1.5\text{A}$, $T_j=25^\circ\text{C}$
		-	4	150		$V_{in}=23\text{V}$, $250\text{mA} \leq I_o \leq 750\text{mA}$, $T_j=25^\circ\text{C}$
IQ		-	4.3	8.0	mA	$V_{in}=23\text{V}$, $I_o=500\text{mA}$, $T_j=25^\circ\text{C}$
ΔIQ		-	-	0.5	mA	$V_{in}=23\text{V}$, $5\text{mA} \leq I_o \leq 1\text{A}$
		-	-	1.0		$17.5\text{V} \leq V_{in} \leq 30\text{V}$, $I_o=500\text{mA}$
Vn		-	90	-	μV	$10\text{Hz} \leq f \leq 100\text{KHz}$, $T_j=25^\circ\text{C}$
RR		54	-	-	dB	$18.5\text{V} \leq V_{in} \leq 28.5\text{V}$, $f=120\text{Hz}$, $T_j=25^\circ\text{C}$
VD		-	2.0	-	V	$I_o=1\text{A}$, $T_j=25^\circ\text{C}$
Isc		-	230	-	mA	$V_{in}=19\text{V}$, $T_j=25^\circ\text{C}$
Ipk		-	2.1	-	A	$T_j=25^\circ\text{C}$
$\Delta\text{Vo} / \Delta\text{Tj}$		-	-1.0	-	$\text{mV}/^\circ\text{C}$	$I_o=5\text{mA}$, $0^\circ\text{C} \leq T_j \leq 125^\circ\text{C}$

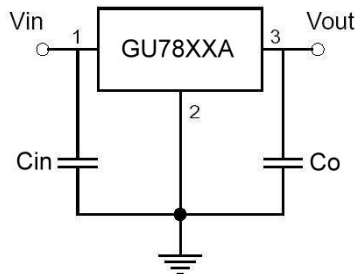
GU7818A (Refer to the test circuits, $T_j=0\sim 125^\circ\text{C}$, $I_o=500\text{mA}$, $V_{in}=27\text{V}$, $C_{in}=0.33\mu\text{F}$, $C_o=0.1\mu\text{F}$ unless otherwise specified)

Symbol		Min.	Typ.	Max.	Unit	Test Conditions
VO	A-Rank (3%)	17.46	18.0	18.54	V	$V_{in}=27\text{V}$, $I_o=500\text{mA}$, $T_j=25^\circ\text{C}$ $21\text{V} \leq V_{in} \leq 33\text{V}$, $5\text{mA} \leq I_o \leq 1\text{A}$, $PD \leq 15\text{W}$
	B-Rank (5%)	17.10	-	18.9		
ΔVO (Line Regulation)		-	15	360	mV	$21\text{V} \leq V_{in} \leq 33\text{V}$, $I_o=500\text{mA}$, $T_j=25^\circ\text{C}$
		-	5	180		$24\text{V} \leq V_{in} \leq 30\text{V}$, $I_o=500\text{mA}$, $T_j=25^\circ\text{C}$
ΔVO (Load Regulation)		-	12	360	mV	$V_{in}=27\text{V}$, $5\text{mA} \leq I_o \leq 1.5\text{A}$, $T_j=25^\circ\text{C}$
		-	4	180		$V_{in}=27\text{V}$, $250\text{mA} \leq I_o \leq 750\text{mA}$, $T_j=25^\circ\text{C}$
IQ		-	4.5	8.0	mA	$V_{in}=27\text{V}$, $I_o=500\text{mA}$, $T_j=25^\circ\text{C}$
ΔIQ		-	-	0.5	mA	$V_{in}=27\text{V}$, $5\text{mA} \leq I_o \leq 1\text{A}$
		-	-	1.0		$21\text{V} \leq V_{in} \leq 33\text{V}$, $I_o=500\text{mA}$
Vn		-	110	-	μV	$10\text{Hz} \leq f \leq 100\text{KHz}$, $T_j=25^\circ\text{C}$
RR		53	-	-	dB	$22\text{V} \leq V_{in} \leq 32\text{V}$, $f=120\text{Hz}$, $T_j=25^\circ\text{C}$
VD		-	2.0	-	V	$I_o=1\text{A}$, $T_j=25^\circ\text{C}$
Isc		-	200	-	mA	$V_{in}=27\text{V}$, $T_j=25^\circ\text{C}$
Ipk		-	2.1	-	A	$T_j=25^\circ\text{C}$
$\Delta\text{Vo} / \Delta\text{Tj}$		-	-1.0	-	$\text{mV}/^\circ\text{C}$	$I_o=5\text{mA}$, $0^\circ\text{C} \leq T_j \leq 125^\circ\text{C}$

GU7824A (Refer to the test circuits, $T_j=0\sim 125^\circ\text{C}$, $I_o=500\text{mA}$, $V_{in}=33\text{V}$, $C_{in}=0.33\mu\text{F}$, $C_o=0.1\mu\text{F}$ unless otherwise specified)

Symbol		Min.	Typ.	Max.	Unit	Test Conditions
VO	A-Rank (3%)	23.28	24.0	24.72	V	$V_{in}=33\text{V}$, $I_o=500\text{mA}$, $T_j=25^\circ\text{C}$ $27\text{V} \leq V_{in} \leq 38\text{V}$, $5\text{mA} \leq I_o \leq 1\text{A}$, $PD \leq 15\text{W}$
	B-Rank (5%)	22.80	-	25.20		
ΔVO (Line Regulation)		-	18	480	mV	$27\text{V} \leq V_{in} \leq 38\text{V}$, $I_o=500\text{mA}$, $T_j=25^\circ\text{C}$
		-	6	240		$30\text{V} \leq V_{in} \leq 36\text{V}$, $I_o=500\text{mA}$, $T_j=25^\circ\text{C}$
ΔVO (Load Regulation)		-	12	480	mV	$V_{in}=33\text{V}$, $5\text{mA} \leq I_o \leq 1.5\text{A}$, $T_j=25^\circ\text{C}$
		-	4	240		$V_{in}=33\text{V}$, $250\text{mA} \leq I_o \leq 750\text{mA}$, $T_j=25^\circ\text{C}$
IQ		-	4.6	8.0	mA	$V_{in}=33\text{V}$, $I_o=500\text{mA}$, $T_j=25^\circ\text{C}$
ΔIQ		-	-	0.5	mA	$V_{in}=33\text{V}$, $5\text{mA} \leq I_o \leq 1\text{A}$
		-	-	1.0		$27\text{V} \leq V_{in} \leq 38\text{V}$, $I_o=500\text{mA}$
Vn		-	170	-	μV	$10\text{Hz} \leq f \leq 100\text{KHz}$, $T_j=25^\circ\text{C}$
RR		50	-	-	dB	$28\text{V} \leq V_{in} \leq 38\text{V}$, $f=120\text{Hz}$, $T_j=25^\circ\text{C}$
VD		-	2.0	-	V	$I_o=1\text{A}$, $T_j=25^\circ\text{C}$
Isc		-	150	-	mA	$V_{in}=33\text{V}$, $T_j=25^\circ\text{C}$
Ipk		-	2.1	-	A	$T_j=25^\circ\text{C}$
$\Delta V_o / \Delta T_j$		-	-1.5	-	$\text{mV}/^\circ\text{C}$	$I_o=5\text{mA}$, $0^\circ\text{C} \leq T_j \leq 125^\circ\text{C}$

Typical Application


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Head Office And Factory:

- Taiwan:** No. 17-1 Tatung Rd. Fu Kou Hsin-Chu Industrial Park, Hsin-Chu, Taiwan, R. O. C.
- TEL : 886-3-597-7061 FAX : 886-3-597-9220, 597-0785
- China:** (201203) No.255, Jang-Jiang Tsai-Lueng RD. , Pu-Dung-Hsin District, Shang-Hai City, China
- TEL : 86-21-5895-7671 ~ 4 FAX : 86-21-38950165