

Electrical Characteristics

G3U7805A (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	Vin=10V, Io=500mA, Tj=25°C 7.5V ≤ Vin ≤ 20V, 5mA ≤ Io ≤ 1A, PD ≤ 15W
	B-Rank (5%)	4.75	-	5.25		
ΔVO (Line Regulation)		-	3	100	mV	7V ≤ Vin ≤ 25V, Io=500mA, Tj=25°C
		-	1	50		8V ≤ Vin ≤ 12V, Io=500mA, Tj=25°C
ΔVO (Load Regulation)		-	15	100	mV	Vin=10V, 5mA ≤ Io ≤ 1.5A, Tj=25°C
		-	5	50		Vin=10V, 250mA ≤ Io ≤ 750mA, Tj=25°C
IQ		-	4.2	8.0	mA	Vin=10V, Io=500mA, Tj=25°C
Δ IQ		-	-	0.5	mA	Vin=10V, 5mA ≤ Io ≤ 1A
		-	-	1.3		7V ≤ Vin ≤ 25V, Io=500mA
Vn		-	40	-	μV	10Hz ≤ f ≤ 100KHz, Tj=25°C
RR		62	-	-	dB	8V ≤ Vin ≤ 18V, f=120Hz, Tj=25°C
VD		-	2.0	-	V	Io=1A, Tj=25°C
Isc		-	750	-	mA	Vin=10V, Tj=25°C
Ipk		-	2.2	-	A	Tj=25°C
ΔVo / ΔTj		-	-1.1	-	mV/°C	Io=5mA, 0°C ≤ Tj ≤ 125°C

G3U7806A (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	Vin=11V, Io=500mA, Tj=25°C 8V ≤ Vin ≤ 21V, 5mA ≤ Io ≤ 1A, PD ≤ 15W
	B-Rank (5%)	5.70	-	6.30		
ΔVO (Line Regulation)		-	5	120	mV	8V ≤ Vin ≤ 25V, Io=500mA, Tj=25°C
		-	1.5	60		9V ≤ Vin ≤ 13V, Io=500mA, Tj=25°C
ΔVO (Load Regulation)		-	14	120	mV	Vin=11V, 5mA ≤ Io ≤ 1.5A, Tj=25°C
		-	4	60		Vin=11V, 250mA ≤ Io ≤ 750mA, Tj=25°C
IQ		-	4.3	8.0	mA	Vin=11V, Io=500mA, Tj=25°C
Δ IQ		-	-	0.5	mA	Vin=11V, 5mA ≤ Io ≤ 1A
		-	-	1.3		8V ≤ Vin ≤ 25V, Io=500mA
Vn		-	45	-	μV	10Hz ≤ f ≤ 100KHz, Tj=25°C
RR		59	-	-	dB	9V ≤ Vin ≤ 19V, f=120Hz, Tj=25°C
VD		-	2.0	-	V	Io=1A, Tj=25°C
Isc		-	550	-	mA	Vin=11V, Tj=25°C
Ipk		-	2.2	-	A	Tj=25°C
ΔVo / ΔTj		-	-0.8	-	mV/°C	Io=5mA, 0°C ≤ Tj ≤ 125°C

G3U7808A (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	$T_j=25^{\circ}\text{C}$
$\Delta VO / \Delta T_j$		-	-0.8	-	$\text{mV}/^{\circ}\text{C}$	$I_o=5\text{mA}$, $0^{\circ}\text{C} \leq T_j \leq 125^{\circ}\text{C}$

G3U7809A (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	$T_j=25^{\circ}\text{C}$
$\Delta VO / \Delta T_j$		-	-1.0	-	$\text{mV}/^{\circ}\text{C}$	$I_o=5\text{mA}$, $0^{\circ}\text{C} \leq T_j \leq 125^{\circ}\text{C}$

G3U7810A (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	-	$\text{mV}/^{\circ}\text{C}$	$I_o=5\text{mA}$, $0^{\circ}\text{C} \leq T_j \leq 125^{\circ}\text{C}$

G3U7812A (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	-	$\text{mV}/^{\circ}\text{C}$	$I_o=5\text{mA}$, $0^{\circ}\text{C} \leq T_j \leq 125^{\circ}\text{C}$

G3U7815A (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	$T_j=25^{\circ}\text{C}$
$\Delta VO / \Delta T_j$		-	-1.0	-	$\text{mV}/^{\circ}\text{C}$	$I_o=5\text{mA}$, $0^{\circ}\text{C} \leq T_j \leq 125^{\circ}\text{C}$

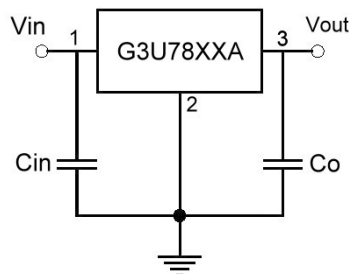
G3U7818A (Refer to the test circuits, $T_j=0\sim 125^{\circ}\text{C}$, $I_o=500\text{mA}$, $V_{in}=27\text{V}$, $C_{in}=0.33\mu\text{F}$, $C_o=0.1\mu\text{F}$ unless otherwise specified)

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	$T_j=25^{\circ}\text{C}$
$\Delta VO / \Delta T_j$		-	-1.0	-	$\text{mV}/^{\circ}\text{C}$	$I_o=5\text{mA}$, $0^{\circ}\text{C} \leq T_j \leq 125^{\circ}\text{C}$

G3U7824A (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	$T_j=25^{\circ}\text{C}$
$\Delta VO / \Delta T_j$		-	-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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