

Electrical Characteristics

G3U7905A (Refer to the test circuits, $T_j=0\sim 125^\circ\text{C}$, $I_o=500\text{mA}$, $V_{in}=-10\text{V}$, $C_{in}=2\mu\text{F}$, $C_o=1\mu\text{F}$ 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)		-	12.5	50	mV	$-7\text{V} \leq V_{in} \leq -25\text{V}$, $I_o=500\text{mA}$, $T_j=25^\circ\text{C}$
		-	4	15		$-8\text{V} \leq V_{in} \leq -12\text{V}$, $I_o=500\text{mA}$, $T_j=25^\circ\text{C}$
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		-	-	6.0	mA	$V_{in}=-10\text{V}$, $I_o=500\text{mA}$, $T_j=25^\circ\text{C}$
ΔIQ		-	-	0.5	mA	$V_{in}=-10\text{V}$, $5\text{mA} \leq I_o \leq 1\text{A}$
		-	-	0.5		$-7\text{V} \leq V_{in} \leq -25\text{V}$, $I_o=500\text{mA}$
Vn		-	125	-	μV	$10\text{Hz} \leq f \leq 100\text{KHz}$, $T_j=25^\circ\text{C}$
RR		54	-	-	dB	$-8\text{V} \leq V_{in} \leq -18\text{V}$, $f=120\text{Hz}$, $T_j=25^\circ\text{C}$
VD		-	1.1	-	V	$I_o=1\text{A}$, $T_j=25^\circ\text{C}$
Ipk		-	2.1	-	A	$T_j=25^\circ\text{C}$
$\Delta\text{Vo} / \Delta\text{Tj}$		-	-0.4	-	$\text{mV}/^\circ\text{C}$	$I_o=5\text{mA}$, $0^\circ\text{C} \leq T_j \leq 125^\circ\text{C}$

G3U7906A (Refer to the test circuits, $T_j=0\sim 125^\circ\text{C}$, $I_o=500\text{mA}$, $V_{in}=-11\text{V}$, $C_{in}=2\mu\text{F}$, $C_o=1\mu\text{F}$ 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)		-	12.5	120	mV	$-8\text{V} \leq V_{in} \leq -25\text{V}$, $I_o=500\text{mA}$, $T_j=25^\circ\text{C}$
		-	4	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)		-	15	120	mV	$V_{in}=-11\text{V}$, $5\text{mA} \leq I_o \leq 1.5\text{A}$, $T_j=25^\circ\text{C}$
		-	5	60		$V_{in}=-11\text{V}$, $250\text{mA} \leq I_o \leq 750\text{mA}$, $T_j=25^\circ\text{C}$
IQ		-	-	6.0	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		-	150	-	μV	$10\text{Hz} \leq f \leq 100\text{KHz}$, $T_j=25^\circ\text{C}$
RR		54	-	-	dB	$-9\text{V} \leq V_{in} \leq -19\text{V}$, $f=120\text{Hz}$, $T_j=25^\circ\text{C}$
VD		-	1.1	-	V	$I_o=1\text{A}$, $T_j=25^\circ\text{C}$
Ipk		-	2.1	-	A	$T_j=25^\circ\text{C}$
$\Delta\text{Vo} / \Delta\text{Tj}$		-	-0.4	-	$\text{mV}/^\circ\text{C}$	$I_o=5\text{mA}$, $0^\circ\text{C} \leq T_j \leq 125^\circ\text{C}$

G3U7908A (Refer to the test circuits, $T_j=0\sim 125^\circ\text{C}$, $I_o=500\text{mA}$, $V_{in}=-14\text{V}$, $C_{in}=2\mu\text{F}$, $C_o=1\mu\text{F}$ 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)		-	12.5	160	mV	$-10.5\text{V} \leq V_{in} \leq -25\text{V}$, $I_o=500\text{mA}$, $T_j=25^\circ\text{C}$
		-	4	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)		-	15	160	mV	$V_{in}=-14\text{V}$, $5\text{mA} \leq I_o \leq 1.5\text{A}$, $T_j=25^\circ\text{C}$
		-	5	80		$V_{in}=-14\text{V}$, $250\text{mA} \leq I_o \leq 750\text{mA}$, $T_j=25^\circ\text{C}$
IQ		-	-	6.0	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		-	200	-	μV	$10\text{Hz} \leq f \leq 100\text{KHz}$, $T_j=25^\circ\text{C}$
RR		54	-	-	dB	$-11.5\text{V} \leq V_{in} \leq -21.5\text{V}$, $f=120\text{Hz}$, $T_j=25^\circ\text{C}$
VD		-	1.1	-	V	$I_o=1\text{A}$, $T_j=25^\circ\text{C}$
Ipk		-	2.1	-	A	$T_j=25^\circ\text{C}$
$\Delta\text{Vo} / \Delta\text{Tj}$		-	-0.6	-	$\text{mV}/^\circ\text{C}$	$I_o=5\text{mA}$, $0^\circ\text{C} \leq T_j \leq 125^\circ\text{C}$

G3U7912A (Refer to the test circuits, $T_j=0\sim 125^\circ\text{C}$, $I_o=500\text{mA}$, $V_{in}=-19\text{V}$, $C_{in}=2\mu\text{F}$, $C_o=1\mu\text{F}$ 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)		-	5	80	mV	$-14.5\text{V} \leq V_{in} \leq -30\text{V}$, $I_o=500\text{mA}$, $T_j=25^\circ\text{C}$
		-	3	30		$-16\text{V} \leq V_{in} \leq -22\text{V}$, $I_o=500\text{mA}$, $T_j=25^\circ\text{C}$
ΔVO (Load Regulation)		-	15	200	mV	$V_{in}=-19\text{V}$, $5\text{mA} \leq I_o \leq 1.5\text{A}$, $T_j=25^\circ\text{C}$
		-	5	75		$V_{in}=-19\text{V}$, $250\text{mA} \leq I_o \leq 750\text{mA}$, $T_j=25^\circ\text{C}$
IQ		-	-	6.0	mA	$V_{in}=-19\text{V}$, $I_o=500\text{mA}$, $T_j=25^\circ\text{C}$
ΔIQ		-	-	0.5	mA	$V_{in}=-19\text{V}$, $5\text{mA} \leq I_o \leq 1\text{A}$
		-	-	0.5		$-14.5\text{V} \leq V_{in} \leq -30\text{V}$, $I_o=500\text{mA}$
Vn		-	300	-	μV	$10\text{Hz} \leq f \leq 100\text{KHz}$, $T_j=25^\circ\text{C}$
RR		54	-	-	dB	$-15\text{V} \leq V_{in} \leq -25\text{V}$, $f=120\text{Hz}$, $T_j=25^\circ\text{C}$
VD		-	1.1	-	V	$I_o=1\text{A}$, $T_j=25^\circ\text{C}$
Ipk		-	2.1	-	A	$T_j=25^\circ\text{C}$
$\Delta\text{Vo} / \Delta\text{Tj}$		-	-0.8	-	$\text{mV}/^\circ\text{C}$	$I_o=5\text{mA}$, $0^\circ\text{C} \leq T_j \leq 125^\circ\text{C}$

G3U7915A (Refer to the test circuits, $T_j=0\sim 125^\circ\text{C}$, $I_o=500\text{mA}$, $V_{in}=-23\text{V}$, $C_{in}=2\mu\text{F}$, $C_o=1\mu\text{F}$ 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)		-	5	100	mV	$-17.5\text{V} \leq V_{in} \leq -30\text{V}$, $I_o=500\text{mA}$, $T_j=25^\circ\text{C}$
		-	3	50		$-20\text{V} \leq V_{in} \leq -26\text{V}$, $I_o=500\text{mA}$, $T_j=25^\circ\text{C}$
ΔVO (Load Regulation)		-	15	200	mV	$V_{in}=-23\text{V}$, $5\text{mA} \leq I_o \leq 1.5\text{A}$, $T_j=25^\circ\text{C}$
		-	5	75		$V_{in}=-23\text{V}$, $250\text{mA} \leq I_o \leq 750\text{mA}$, $T_j=25^\circ\text{C}$
IQ		-	-	6.0	mA	$V_{in}=-23\text{V}$, $I_o=500\text{mA}$, $T_j=25^\circ\text{C}$
ΔIQ		-	-	0.5	mA	$V_{in}=-23\text{V}$, $5\text{mA} \leq I_o \leq 1\text{A}$
		-	-	0.5		$-17.5\text{V} \leq V_{in} \leq -30\text{V}$, $I_o=500\text{mA}$
Vn		-	375	-	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		-	1.1	-	V	$I_o=1\text{A}$, $T_j=25^\circ\text{C}$
Ipk		-	2.1	-	A	$T_j=25^\circ\text{C}$
$\Delta\text{Vo} / \Delta\text{Tj}$		-	-1.0	-	$\text{mV}/^\circ\text{C}$	$I_o=5\text{mA}$, $0^\circ\text{C} \leq T_j \leq 125^\circ\text{C}$

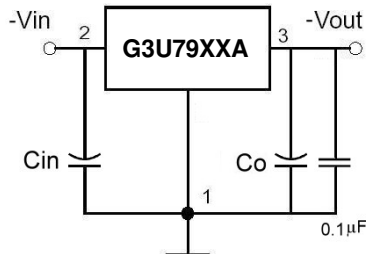
G3U7918A (Refer to the test circuits, $T_j=0\sim 125^\circ\text{C}$, $I_o=500\text{mA}$, $V_{in}=-27\text{V}$, $C_{in}=2\mu\text{F}$, $C_o=1\mu\text{F}$ unless otherwise specified)

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)		-	5	360	mV	$-21\text{V} \leq V_{in} \leq -33\text{V}$, $I_o=500\text{mA}$, $T_j=25^\circ\text{C}$
		-	3	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)		-	30	360	mV	$V_{in}=-27\text{V}$, $5\text{mA} \leq I_o \leq 1.5\text{A}$, $T_j=25^\circ\text{C}$
		-	10	180		$V_{in}=-27\text{V}$, $250\text{mA} \leq I_o \leq 750\text{mA}$, $T_j=25^\circ\text{C}$
IQ		-	-	6.0	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		-	450	-	μV	$10\text{Hz} \leq f \leq 100\text{KHz}$, $T_j=25^\circ\text{C}$
RR		54	-	-	dB	$-22\text{V} \leq V_{in} \leq -32\text{V}$, $f=120\text{Hz}$, $T_j=25^\circ\text{C}$
VD		-	1.1	-	V	$I_o=1\text{A}$, $T_j=25^\circ\text{C}$
Ipk		-	2.1	-	A	$T_j=25^\circ\text{C}$
$\Delta\text{Vo} / \Delta\text{Tj}$		-	-1.0	-	$\text{mV}/^\circ\text{C}$	$I_o=5\text{mA}$, $0^\circ\text{C} \leq T_j \leq 125^\circ\text{C}$

G3U7924A (Refer to the test circuits, $T_j=0\sim 125^\circ\text{C}$, $I_o=500\text{mA}$, $V_{in}=-33\text{V}$, $C_{in}=2\mu\text{F}$, $C_o=1\mu\text{F}$ 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		
ΔV_O (Line Regulation)		-	5	480	mV	$-27\text{V} \leq V_{in} \leq -38\text{V}$, $I_o=500\text{mA}$, $T_j=25^\circ\text{C}$
		-	3	240		$-30\text{V} \leq V_{in} \leq -36\text{V}$, $I_o=500\text{mA}$, $T_j=25^\circ\text{C}$
ΔV_O (Load Regulation)		-	85	480	mV	$V_{in}=-33\text{V}$, $5\text{mA} \leq I_o \leq 1.5\text{A}$, $T_j=25^\circ\text{C}$
		-	25	240		$V_{in}=-33\text{V}$, $250\text{mA} \leq I_o \leq 750\text{mA}$, $T_j=25^\circ\text{C}$
IQ		-	-	6.0	mA	$V_{in}=-33\text{V}$, $I_o=500\text{mA}$, $T_j=25^\circ\text{C}$
ΔI_Q		-	-	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		-	600	-	μV	$10\text{Hz} \leq f \leq 100\text{KHz}$, $T_j=25^\circ\text{C}$
RR		54	-	-	dB	$-28\text{V} \leq V_{in} \leq -38\text{V}$, $f=120\text{Hz}$, $T_j=25^\circ\text{C}$
VD		-	1.1	-	V	$I_o=1\text{A}$, $T_j=25^\circ\text{C}$
Ipk		-	2.1	-	A	$T_j=25^\circ\text{C}$
$\Delta V_o / \Delta T_j$		-	-1.0	-	$\text{mV}/^\circ\text{C}$	$I_o=5\text{mA}$, $0^\circ\text{C} \leq T_j \leq 125^\circ\text{C}$

Typical Application


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