

1A THREE TERMINAL NEGATIVE VOLTAGE REGULATORS -5V, -6V, -7V, -8V, -9V, -10V, -12V, -15V, -18V, -20V, -24V.

FEATURES

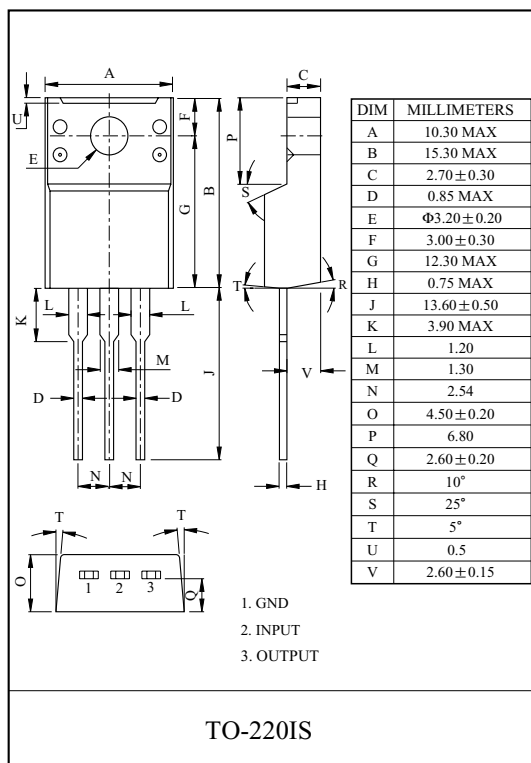
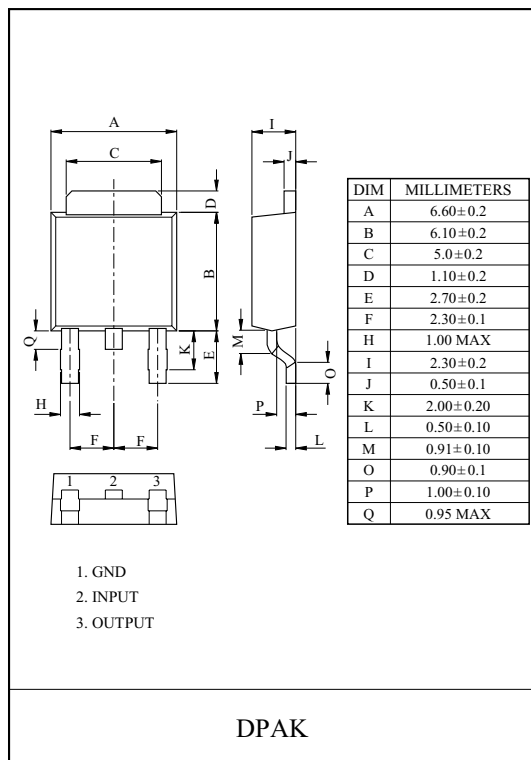
- Suitable for C-MOS, TTL, and the other digital IC power supply.
- Internal thermal overload protecting.
- Internal short circuit current limiting.
- Output current in excess of 1.0A.

LINE-UP

ITEM	OUTPUT VOLTAGE (Typ.)	UNIT
KIA7905F/PI	-5	F : DPAK PI : TO-220IS
KIA7906F/PI	-6	
KIA7907F/PI	-7	
KIA7908F/PI	-8	
KIA7909F/PI	-9	
KIA7910F/PI	-10	
KIA7912F/PI	-12	
KIA7915F/PI	-15	
KIA7918F/PI	-18	
KIA7920F/PI	-20	
KIA7924F/PI	-24	

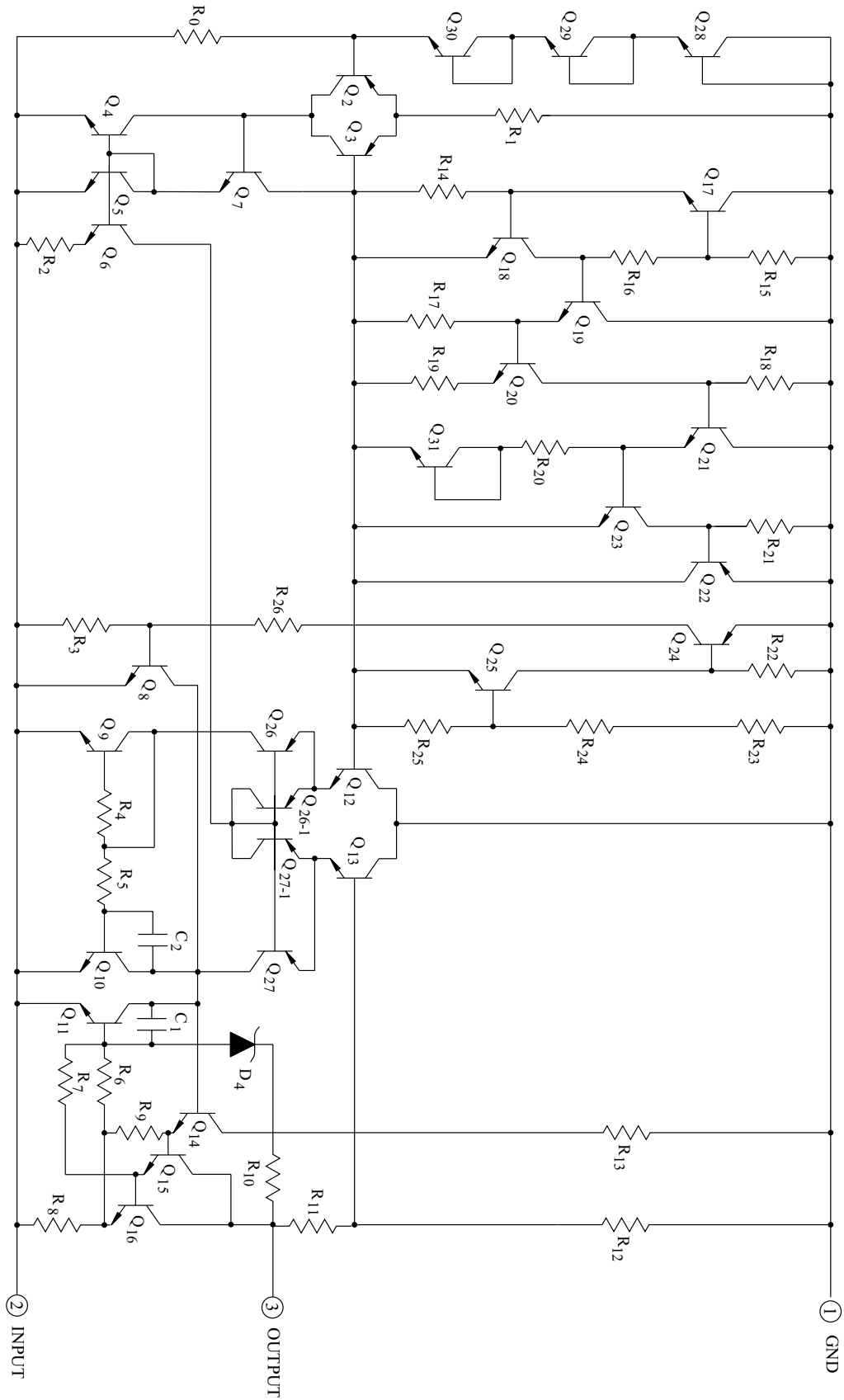
MAXIMUM RATINGS (Ta=25 °C)

CHARACTERISTIC		SYMBOL	RATING	UNIT
Input Voltage	KIA7905 ~ KIA7915	V_{IN}	-35	V
	KIA7918 ~ KIA7924		-40	
Power Dissipation-1 (No Heatsink)	F	P_{D1}	1.3	W
	PI		2.0	
Power Dissipation-2 (Infinite Heatsink)	F	P_{D2}	12.0	W
	PI		20.8	
Operating Junction Temperature		T_j	-30 ~ 150	°C
Operating Temperature		T_{opr}	-30 ~ 75	°C
Storage Temperature		T_{stg}	-55 ~ 150	°C



KIA7905F/PI~KIA7924F/PI

EQUIVALENT CIRCUIT



KIA7905F/PI~KIA7924F/PI

ELECTRICAL CHARACTERISTICS

KIA7905F/PI

(Unless otherwise specified, $V_{IN}=-10V$, $I_{OUT}=500mA$, $0^{\circ}C \leq T_j \leq 125^{\circ}C$, $C_{IN}=2.2\mu F$, $C_{OUT}=1\mu F$)

CHARACTERISTIC	SYMBOL	TEST CIRCUIT	TEST CONDITION		MIN.	TYP.	MAX.	UNIT
Output Voltage	V _{OUT}	Fig.1	T _j =25 ℃		-5.2	-5.0	-4.8	V
Input Regulation	Reg line	Fig.1	T _j =25 ℃	-12V ≤ V _{IN} ≤ -8V	-	5	50	mV
				-25V ≤ V _{IN} ≤ -7V	-	10	100	
Load Regulation	Reg load	Fig.1	T _j =25 ℃	5mA ≤ I _{OUT} ≤ 1.5A	-	10	100	mV
				250mA ≤ I _{OUT} ≤ 750mA	-	3	50	
Output Voltage	V _{OUT}	Fig.1	-20V ≤ V _{IN} ≤ -7V 5mA ≤ I _{OUT} ≤ 1.0A		-5.25	-5.0	-4.75	V
Quiescent Current	I _B	Fig.1	T _j =25 ℃		-	3	6	mA
Quiescent Current Change	ΔI _{BI}	Fig.1	-25V ≤ V _{IN} ≤ -8V		-	0.1	1.3	mA
	ΔI _{BO}		5mA ≤ I _{OUT} ≤ 1.0A		-	0.05	0.5	
Output Noise Voltage	V _{NO}	Fig.2	Ta=25 ℃, 10Hz ≤ f ≤ 100kHz		-	100	-	μV _{rms}
Ripple Rejection Ratio	RR	Fig.3	f=120Hz, I _{OUT} =20mA,		54	60	-	dB
Short Circuit Current Limit	I _{SC}	Fig.1	T _j =25 ℃		-	1.9	-	A
Average Temperature Coefficient of Output Voltage	T _{CVO}	Fig.1	I _{OUT} =5.0mA		-	-0.4	-	mV/ ℃
Dropout Voltage	V _D	Fig.1	T _j =25 ℃, I _{OUT} =1A		-	2.0	-	V

KIA7905F/PI~KIA7924F/PI

ELECTRICAL CHARACTERISTICS

KIA7906F/PI

(Unless otherwise specified, $V_{IN}=-11V$, $I_{OUT}=500mA$, $0^{\circ}C \leq T_j \leq 125^{\circ}C$, $C_{IN}=2.2\mu F$, $C_{OUT}=1\mu F$)

CHARACTERISTIC		SYMBOL	TEST CIRCUIT	TEST CONDITION		MIN.	TYP.	MAX.	UNIT
Output Voltage		V _{OUT}	Fig.1	T _j =25℃		-6.25	-6.0	-5.75	V
Input Regulation		Reg line	Fig.1	T _j =25℃	-13V ≤ V _{IN} ≤ -9V	-	5	60	mV
					-25V ≤ V _{IN} ≤ -8V	-	10	120	
Load Regulation		Reg load	Fig.1	T _j =25℃	5mA ≤ I _{OUT} ≤ 1.5A	-	10	120	mV
					250mA ≤ I _{OUT} ≤ 750mA	-	3	60	
Output Voltage		V _{OUT}	Fig.1	-21V ≤ V _{IN} ≤ -9V 5mA ≤ I _{OUT} ≤ 1.0A		-6.3	-6.0	-5.7	V
Quiescent Current		I _B	Fig.1	T _j =25℃		-	3	6	mA
Quiescent Current Change	Line	ΔI _{BI}	Fig.1	-25V ≤ V _{IN} ≤ -9V		-	-	1.3	mA
	Load	ΔI _{BO}		5mA ≤ I _{OUT} ≤ 1.0A		-	-	0.5	
Output Noise Voltage		V _{NO}	Fig.2	Ta=25℃, 10Hz ≤ f ≤ 100kHz		-	130	-	μV _{rms}
Ripple Rejection Ratio		RR	Fig.3	f=120Hz, I _{OUT} =20mA,		54	60	-	dB
Short Circuit Current Limit		I _{SC}	Fig.1	T _j =25℃		-	1.9	-	A
Average Temperature Coefficient of Output Voltage		T _{CVO}	Fig.1	I _{OUT} =5mA		-	-0.5	-	mV/℃
Dropout Voltage		V _D	Fig.1	T _j =25℃, I _{OUT} =1A		-	2.0	-	V

KIA7905F/PI~KIA7924F/PI

ELECTRICAL CHARACTERISTICS

KIA7907F/PI

(Unless otherwise specified, $V_{IN}=-12V$, $I_{OUT}=500mA$, $0^{\circ}C \leq T_j \leq 125^{\circ}C$, $C_{IN}=2.2\mu F$, $C_{OUT}=1\mu F$)

CHARACTERISTIC		SYMBOL	TEST CIRCUIT	TEST CONDITION		MIN.	TYP.	MAX.	UNIT
Output Voltage		V _{OUT}	Fig.1	T _j =25℃		-7.28	-7.0	-6.72	V
Input Regulation		Reg line	Fig.1	T _j =25℃	-15V ≤V _{IN} ≤-10V	-	10	70	mV
					-25V ≤V _{IN} ≤-9V	-	45	140	
Load Regulation		Reg load	Fig.1	T _j =25℃	5mA ≤I _{OUT} ≤1.5A	-	20	140	mV
					250mA ≤I _{OUT} ≤750mA	-	7	70	
Output Voltage		V _{OUT}	Fig.1	-22V ≤V _{IN} ≤-9V 5mA ≤I _{OUT} ≤1.0A		-7.35	-	-6.65	V
Quiescent Current		I _B	Fig.1	T _j =25℃		-	4.3	8.0	mA
Quiescent Current Change	Line	ΔI _{BI}	Fig.1	-25V ≤V _{IN} ≤-9V		-	-	1.0	mA
	Load	ΔI _{BO}		5mA ≤I _{OUT} ≤1.0A		-	-	0.5	
Output Noise Voltage		V _{NO}	Fig.2	T _a =25℃, 10Hz ≤f ≤100kHz		-	49	-	μV _{rms}
Ripple Rejection Ratio		RR	Fig.3	f=120Hz, I _{OUT} =20mA,		60	67	-	dB
Short Circuit Current Limit		I _{SC}	Fig.1	T _j =25℃		-	1.9	-	A
Average Temperature Coefficient of Output Voltage		T _{CVO}	Fig.1	I _{OUT} =5mA		-	0.9	-	mV/℃
Dropout Voltage		V _D	Fig.1	T _j =25℃, I _{OUT} =1A		-	2.0	-	V

KIA7905F/PI~KIA7924F/PI

ELECTRICAL CHARACTERISTICS

KIA7908F/PI

(Unless otherwise specified, $V_{IN}=-14V$, $I_{OUT}=500mA$, $0^{\circ}C \leq T_j \leq 125^{\circ}C$, $C_{IN}=2.2\mu F$, $C_{OUT}=1\mu F$)

CHARACTERISTIC		SYMBOL	TEST CIRCUIT	TEST CONDITION		MIN.	TYP.	MAX.	UNIT
Output Voltage		V _{OUT}	Fig.1	T _j =25℃		-8.3	-8.0	-7.7	V
Input Regulation		Reg line	Fig.1	T _j =25℃	-17V ≤ V _{IN} ≤ -11V	-	5	80	mV
					-25V ≤ V _{IN} ≤ -10.5V	-	10	100	
Load Regulation		Reg load	Fig.1	T _j =25℃	5mA ≤ I _{OUT} ≤ 1.5A	-	12	160	mV
					250mA ≤ I _{OUT} ≤ 750mA	-	4	80	
Output Voltage		V _{OUT}	Fig.1	-23V ≤ V _{IN} ≤ -11.5V 5mA ≤ I _{OUT} ≤ 1.0A		-8.4	-8.0	-7.6	V
Quiescent Current		I _B	Fig.1	T _j =25℃		-	3	6	mA
Quiescent Current Change	Line	ΔI _{BI}	Fig.1	-25V ≤ V _{IN} ≤ -11.5V		-	0.1	1.0	mA
	Load	ΔI _{BO}		5mA ≤ I _{OUT} ≤ 1.0A		-	0.05	0.5	
Output Noise Voltage		V _{NO}	Fig.2	Ta=25℃, 10Hz ≤ f ≤ 100kHz		-	175	-	μV _{rms}
Ripple Rejection Ratio		RR	Fig.3	f=120Hz, I _{OUT} =20mA,		54	60	-	dB
Short Circuit Current Limit		I _{SC}	Fig.1	T _j =25℃		-	1.9	-	A
Average Temperature Coefficient of Output Voltage		T _{CVO}	Fig.1	I _{OUT} =5mA		-	-0.6	-	mV/℃
Dropout Voltage		V _D	Fig.1	T _j =25℃, I _{OUT} =1A		-	2.0	-	V

KIA7905F/PI~KIA7924F/PI

ELECTRICAL CHARACTERISTICS

KIA7909F/PI

(Unless otherwise specified, $V_{IN}=-15V$, $I_{OUT}=500mA$, $0^{\circ}C \leq T_j \leq 125^{\circ}C$, $C_{IN}=2.2\mu F$, $C_{OUT}=1\mu F$)

CHARACTERISTIC		SYMBOL	TEST CIRCUIT	TEST CONDITION		MIN.	TYP.	MAX.	UNIT
Output Voltage		V _{OUT}	Fig.1	T _j =25 ℃		-9.3	-9.0	-8.7	V
Input Regulation		Reg line	Fig.1	T _j =25 ℃	-19V ≤V _{IN} ≤-13V	-	5	90	mV
					-26V ≤V _{IN} ≤-11.5V	-	10	100	
Load Regulation		Reg load	Fig.1	T _j =25 ℃	5mA ≤I _{OUT} ≤1.5A	-	10	150	mV
					250mA ≤I _{OUT} ≤750mA	-	5	120	
Output Voltage		V _{OUT}	Fig.1	-24V ≤V _{IN} ≤-11.5V 5mA ≤I _{OUT} ≤1.0A		-9.4	-9.0	-8.6	V
Quiescent Current		I _B	Fig.1	T _j =25 ℃		-	3	6	mA
Quiescent Current Change	Line	ΔI _{BI}	Fig.1	-26.5V ≤V _{IN} ≤-13V		-	0.1	1.0	mA
	Load	ΔI _{BO}		5mA ≤I _{OUT} ≤1.0A		-	0.05	0.5	
Output Noise Voltage		V _{NO}	Fig.2	Ta=25 ℃, 10Hz ≤f ≤100kHz		-	180	-	μV _{rms}
Ripple Rejection Ratio		RR	Fig.3	f=120Hz, I _{OUT} =20mA,		54	60	-	dB
Short Circuit Current Limit		I _{SC}	Fig.1	T _j =25 ℃		-	1.9	-	A
Average Temperature Coefficient of Output Voltage		T _{CVO}	Fig.1	I _{OUT} =5mA		-	-0.7	-	mV/ ℃
Dropout Voltage		V _D	Fig.1	T _j =25 ℃, I _{OUT} =1A		-	2.0	-	V

KIA7905F/PI~KIA7924F/PI

ELECTRICAL CHARACTERISTICS

KIA7910F/PI

(Unless otherwise specified, $V_{IN}=-16V$, $I_{OUT}=500mA$, $0^{\circ}C \leq T_j \leq 125^{\circ}C$, $C_{IN}=2.2\mu F$, $C_{OUT}=1\mu F$)

CHARACTERISTIC		SYMBOL	TEST CIRCUIT	TEST CONDITION		MIN.	TYP.	MAX.	UNIT
Output Voltage		V _{OUT}	Fig.1	T _j =25℃		-10.4	-10	-9.6	V
Input Regulation		Reg line	Fig.1	T _j =25℃	-20V ≤ V _{IN} ≤ -14V	-	5	100	mV
					-27V ≤ V _{IN} ≤ -12.5V	-	10	110	
Load Regulation		Reg load	Fig.1	T _j =25℃	5mA ≤ I _{OUT} ≤ 1.5A	-	10	180	mV
					250mA ≤ I _{OUT} ≤ 750mA	-	6	120	
Output Voltage		V _{OUT}	Fig.1	-25V ≤ V _{IN} ≤ -12.5V 5mA ≤ I _{OUT} ≤ 1.0A		-10.5	-10	-9.5	V
Quiescent Current		I _B	Fig.1	T _j =25℃		-	3	6	mA
Quiescent Current Change	Line	ΔI _{BI}	Fig.1	-27.5V ≤ V _{IN} ≤ -14V		-	0.1	1.0	mA
	Load	ΔI _{BO}		5mA ≤ I _{OUT} ≤ 1.0A		-	0.05	0.5	
Output Noise Voltage		V _{NO}	Fig.2	Ta=25℃, 10Hz ≤ f ≤ 100kHz		-	190	-	μV _{rms}
Ripple Rejection Ratio		RR	Fig.3	f=120Hz, I _{OUT} =20mA		54	60	-	dB
Short Circuit Current Limit		I _{SC}	Fig.1	T _j =25℃		-	1.9	-	A
Average Temperature Coefficient of Output Voltage		T _{CVO}	Fig.1	I _{OUT} =5mA		-	-0.7	-	mV/℃
Dropout Voltage		V _D	Fig.1	T _j =25℃, I _{OUT} =1A		-	2.0	-	V

KIA7905F/PI~KIA7924F/PI

ELECTRICAL CHARACTERISTICS

KIA7912F/PI

(Unless otherwise specified, $V_{IN}=-18V$, $I_{OUT}=500mA$, $0^{\circ}C \leq T_j \leq 125^{\circ}C$, $C_{IN}=2.2\mu F$, $C_{OUT}=1\mu F$)

CHARACTERISTIC		SYMBOL	TEST CIRCUIT	TEST CONDITION		MIN.	TYP.	MAX.	UNIT
Output Voltage		V _{OUT}	Fig.1	T _j =25 °C		-12.5	-12	-11.5	V
Input Regulation		Reg line	Fig.1	T _j =25 °C	-22V ≤V _{IN} ≤-16V	-	6	120	mV
					-30V ≤V _{IN} ≤-14.5V	-	12	240	
Load Regulation		Reg load	Fig.1	T _j =25 °C	5mA ≤I _{OUT} ≤1.5A	-	12	240	mV
					250mA ≤I _{OUT} ≤750mA	-	4	120	
Output Voltage		V _{OUT}	Fig.1	-27V ≤V _{IN} ≤-15.5V 5mA ≤I _{OUT} ≤1.0A		-12.6	-12	-11.4	V
Quiescent Current		I _B	Fig.1	T _j =25 °C		-	3	6	mA
Quiescent Current Change	Line	ΔI _{BI}	Fig.1	-30V ≤V _{IN} ≤-15V		-	0.1	1.0	mA
	Load	ΔI _{BO}		5mA ≤I _{OUT} ≤1.0A		-	0.05	0.5	
Output Noise Voltage		V _{NO}	Fig.2	Ta=25 °C, 10Hz ≤f ≤100kHz		-	200	-	μV _{rms}
Ripple Rejection Ratio		RR	Fig.3	f=120Hz, I _{OUT} =20mA,		54	60	-	dB
Short Circuit Current Limit		I _{SC}	Fig.1	T _j =25 °C		-	1.9	-	A
Average Temperature Coefficient of Output Voltage		T _{CVO}	Fig.1	I _{OUT} =5mA		-	-0.8	-	mV/ °C
Dropout Voltage		V _D	Fig.1	T _j =25 °C, I _{OUT} =1A		-	2.0	-	V

KIA7905F/PI~KIA7924F/PI

ELECTRICAL CHARACTERISTICS

KIA7915F/PI

(Unless otherwise specified, $V_{IN}=-23V$, $I_{OUT}=500mA$, $0^{\circ}C \leq T_j \leq 125^{\circ}C$, $C_{IN}=2.2\mu F$, $C_{OUT}=1\mu F$)

CHARACTERISTIC		SYMBOL	TEST CIRCUIT	TEST CONDITION		MIN.	TYP.	MAX.	UNIT
Output Voltage		V _{OUT}	Fig.1	T _j =25℃		-15.6	-15	-14.4	V
Input Regulation		Reg line	Fig.1	T _j =25℃	-26V ≤ V _{IN} ≤ -20V	-	6	150	mV
					-30V ≤ V _{IN} ≤ -17.5V	-	12	300	
Load Regulation		Reg load	Fig.1	T _j =25℃	5mA ≤ I _{OUT} ≤ 1.5A	-	12	300	mV
					250mA ≤ I _{OUT} ≤ 750mA	-	4	150	
Output Voltage		V _{OUT}	Fig.1	-30V ≤ V _{IN} ≤ -18V 5mA ≤ I _{OUT} ≤ 1.0A		-15.75	-15	-14.25	V
Quiescent Current		I _B	Fig.1	T _j =25℃		-	3	6	mA
Quiescent Current Change	Line	ΔI _{BI}	Fig.1	-30V ≤ V _{IN} ≤ -17.5V		-	0.1	1.0	mA
	Load	ΔI _{BO}		5mA ≤ I _{OUT} ≤ 1.0A		-	0.05	0.5	
Output Noise Voltage		V _{NO}	Fig.2	Ta=25℃, 10Hz ≤ f ≤ 100kHz		-	250	-	μV _{rms}
Ripple Rejection Ratio		RR	Fig.3	f=120Hz, I _{OUT} =20mA,		54	60	-	dB
Short Circuit Current Limit		I _{SC}	Fig.1	T _j =25℃		-	1.9	-	A
Average Temperature Coefficient of Output Voltage		T _{CVO}	Fig.1	I _{OUT} =5mA		-	-0.9	-	mV/℃
Dropout Voltage		V _D	Fig.1	T _j =25℃, I _{OUT} =1A		-	2.0	-	V

KIA7905F/PI~KIA7924F/PI

ELECTRICAL CHARACTERISTICS

KIA7918F/PI

(Unless otherwise specified, $V_{IN}=-27V$, $I_{OUT}=500mA$, $0^{\circ}C \leq T_j \leq 125^{\circ}C$, $C_{IN}=2.2\mu F$, $C_{OUT}=1\mu F$)

CHARACTERISTIC		SYMBOL	TEST CIRCUIT	TEST CONDITION		MIN.	TYP.	MAX.	UNIT
Output Voltage		V _{OUT}	Fig.1	T _j =25 ℃		-18.7	-18	-17.3	V
Input Regulation		Reg line	Fig.1	T _j =25 ℃	-30V ≤V _{IN} ≤-24V	-	8	180	mV
					-33V ≤V _{IN} ≤-21V	-	15	360	
Load Regulation		Reg load	Fig.1	T _j =25 ℃	5mA ≤I _{OUT} ≤1.5A	-	15	360	mV
					250mA ≤I _{OUT} ≤750mA	-	5	180	
Output Voltage		V _{OUT}	Fig.1	-33V ≤V _{IN} ≤-22.5V 5mA ≤I _{OUT} ≤1.0A		-18.85	-18	-17.15	V
Quiescent Current		I _B	Fig.1	T _j =25 ℃		-	3	6	mA
Quiescent Current Change	Line	Δ I _{BI}	Fig.1	-33V ≤V _{IN} ≤-22V		-	-	1.0	mA
	Load	Δ I _{BO}		5mA ≤I _{OUT} ≤1.0A		-	-	0.5	
Output Noise Voltage		V _{NO}	Fig.2	Ta=25 ℃, 10Hz ≤f ≤100kHz		-	300	-	μV _{rms}
Ripple Rejection Ratio		RR	Fig.3	f=120Hz, I _{OUT} =20mA,		54	60	-	dB
Short Circuit Current Limit		I _{SC}	Fig.1	T _j =25 ℃		-	1.9	-	A
Average Temperature Coefficient of Output Voltage		T _{CVO}	Fig.1	I _{OUT} =5mA		-	-1.0	-	mV/ ℃
Dropout Voltage		V _D	Fig.1	T _j =25 ℃, I _{OUT} =1A		-	2.0	-	V

KIA7905F/PI~KIA7924F/PI

ELECTRICAL CHARACTERISTICS

KIA7920F/PI

(Unless otherwise specified, $V_{IN}=-30V$, $I_{OUT}=500mA$, $0^{\circ}C \leq T_j \leq 125^{\circ}C$, $C_{IN}=2.2\mu F$, $C_{OUT}=1\mu F$)

CHARACTERISTIC		SYMBOL	TEST CIRCUIT	TEST CONDITION		MIN.	TYP.	MAX.	UNIT
Output Voltage		V _{OUT}	Fig.1	T _j =25℃		-20.8	-20	-19.2	V
Input Regulation		Reg line	Fig.1	T _j =25℃	-32V ≤ V _{IN} ≤ -26V	-	10	180	mV
					-35V ≤ V _{IN} ≤ -24V	-	18	360	
Load Regulation		Reg load	Fig.1	T _j =25℃	5mA ≤ I _{OUT} ≤ 1.5A	-	18	360	mV
					250mA ≤ I _{OUT} ≤ 750mA	-	10	180	
Output Voltage		V _{OUT}	Fig.1	-35V ≤ V _{IN} ≤ -24 5mA ≤ I _{OUT} ≤ 1.0A		-21.0	-20	-19.0	V
Quiescent Current		I _B	Fig.1	T _j =25℃		-	3	6	mA
Quiescent Current Change	Line	ΔI _{BI}	Fig.1	-36.5V ≤ V _{IN} ≤ -25V		-	-	1.0	mA
	Load	ΔI _{BO}		5mA ≤ I _{OUT} ≤ 1.0A		-	-	0.5	
Output Noise Voltage		V _{NO}	Fig.2	Ta=25℃, 10Hz ≤ f ≤ 100kHz		-	350	-	μV _{rms}
Ripple Rejection Ratio		RR	Fig.3	f=120Hz, I _{OUT} =20mA		54	60	-	dB
Short Circuit Current Limit		I _{SC}	Fig.1	T _j =25℃		-	1.9	-	A
Average Temperature Coefficient of Output Voltage		T _{CVO}	Fig.1	I _{OUT} =5mA		-	-1.0	-	mV/℃
Dropout Voltage		V _D	Fig.1	T _j =25℃, I _{OUT} =1A		-	2.0	-	V

KIA7905F/PI~KIA7924F/PI

ELECTRICAL CHARACTERISTICS

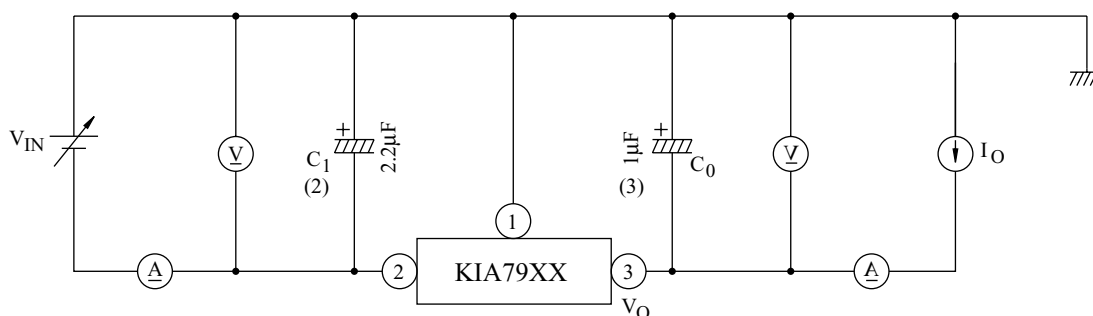
KIA7924F/PI

(Unless otherwise specified, $V_{IN}=-33V$, $I_{OUT}=500mA$, $0^{\circ}C \leq T_j \leq 125^{\circ}C$, $C_{IN}=0.33\mu F$, $C_{OUT}=0.1\mu F$)

CHARACTERISTIC		SYMBOL	TEST CIRCUIT	TEST CONDITION		MIN.	TYP.	MAX.	UNIT
Output Voltage		V _{OUT}	Fig.1	T _j =25℃		-25	-24	-23	V
Input Regulation		Reg line	Fig.1	T _j =25℃	-36V ≤V _{IN} ≤-30V	-	8	240	mV
					-38V ≤V _{IN} ≤-27V	-	15	480	
Load Regulation		Reg load	Fig.1	T _j =25℃	5mA ≤I _{OUT} ≤1.5A	-	15	480	mV
					250mA ≤I _{OUT} ≤750mA	-	5	240	
Output Voltage		V _{OUT}	Fig.1	-38V ≤V _{IN} ≤-27V 5mA ≤I _{OUT} ≤1.0A		-25.2	-24	-22.5	V
Quiescent Current		I _B	Fig.1	T _j =25℃		-	3	6	mA
Quiescent Current Change	Line	ΔI _{BI}	Fig.1	-38V ≤V _{IN} ≤-27V		-	-	1.0	mA
	Load	ΔI _{BO}		5mA ≤I _{OUT} ≤1.0A		-	-	0.5	
Output Noise Voltage		V _{NO}	Fig.2	T _a =25℃, 10Hz ≤f ≤100kHz		-	400	-	μV _{rms}
Ripple Rejection Ratio		RR	Fig.3	f=120Hz, I _{OUT} =20mA,		54	60	-	dB
Short Circuit Current Limit		I _{SC}	Fig.1	T _j =25℃		-	1.9	-	A
Average Temperature Coefficient of Output Voltage		T _{CVO}	Fig.1	I _{OUT} =5mA		-	-1.0	-	mV/℃
Dropout Voltage		V _D	Fig.1	T _a =25℃, I _{OUT} =1A		-	2.0	-	V

KIA7905F/PI~KIA7924F/PI

Fig.1 Standard Test Circuit



Notes : (1) To specify an output voltage, substitute voltage value for "XX"

- (2) Required for stability. For value given, capacitor must be solid tantalum. If aluminum electrolytics are used, at least ten times value shown should be selected. C_1 is required if regulator is located an appreciable distance from power supply filter.
- (3) To improve transient response. If large capacitors are used, a high current diode from input to output

Fig.2 V_{NO} Test Circuit

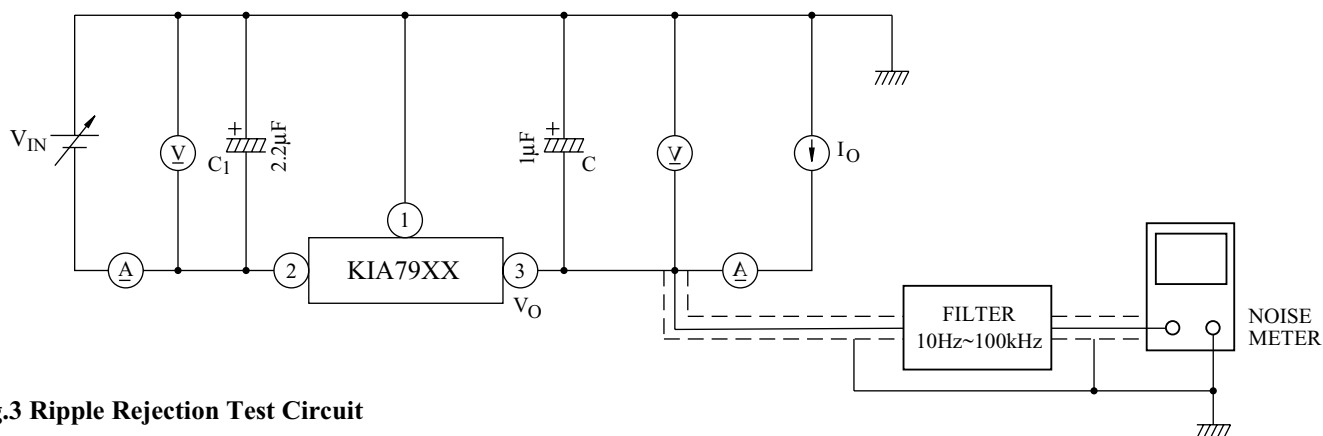
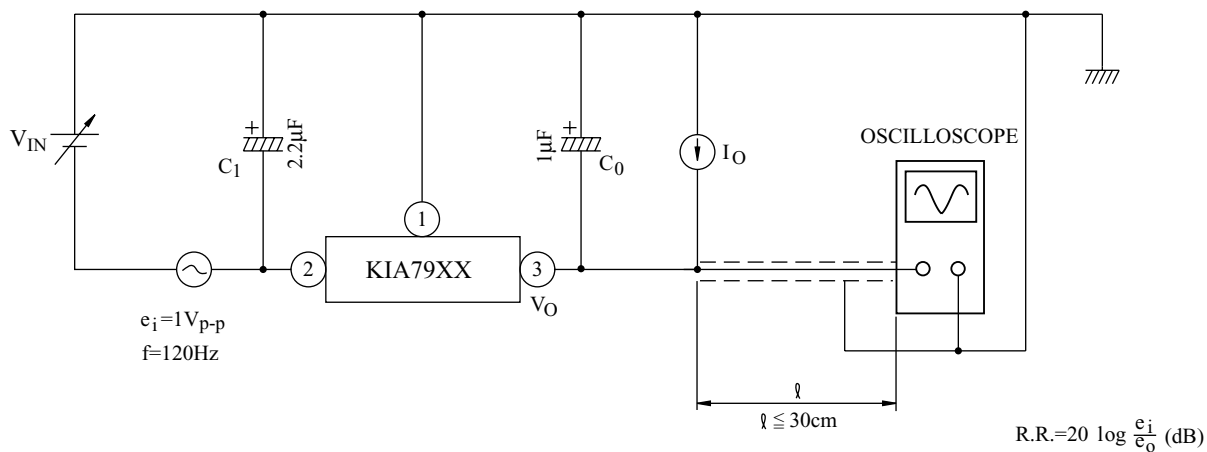


Fig.3 Ripple Rejection Test Circuit



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Fig. 4

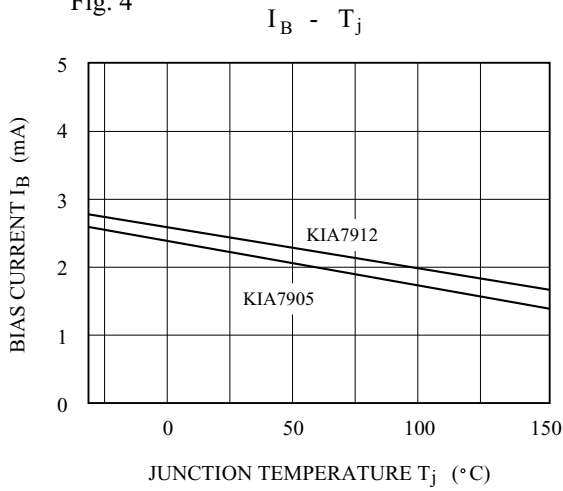


Fig. 5

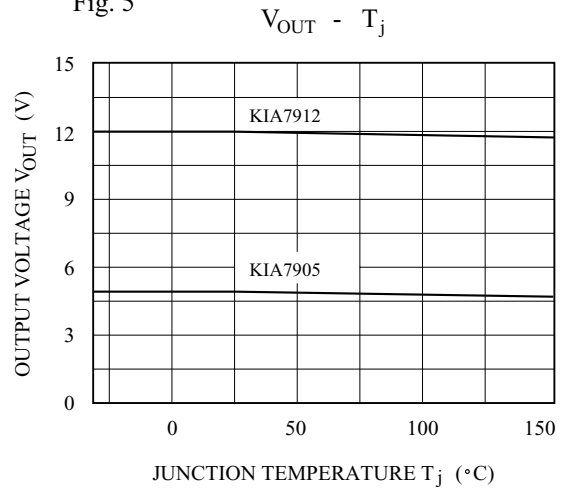


Fig. 6

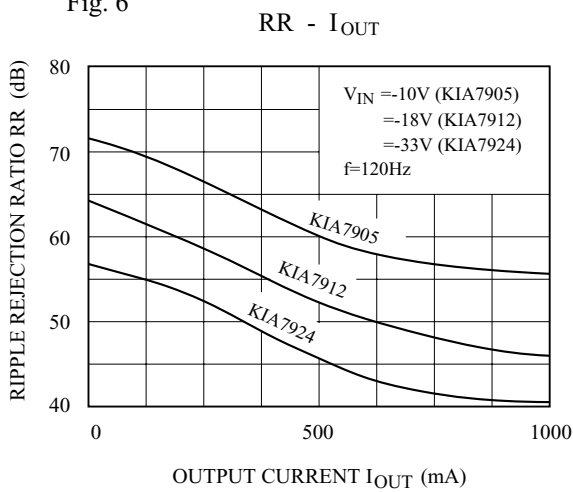


Fig. 7

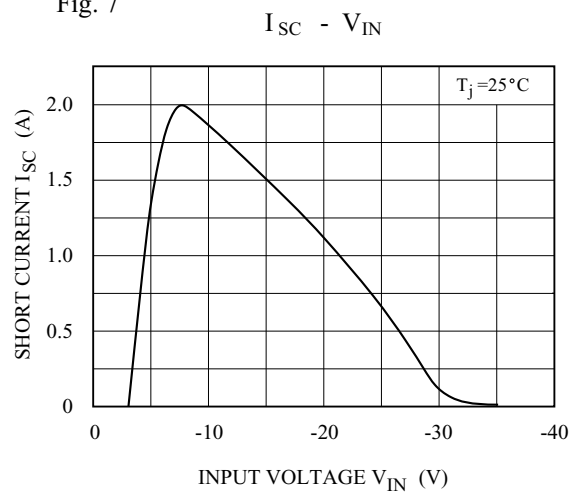


Fig. 8

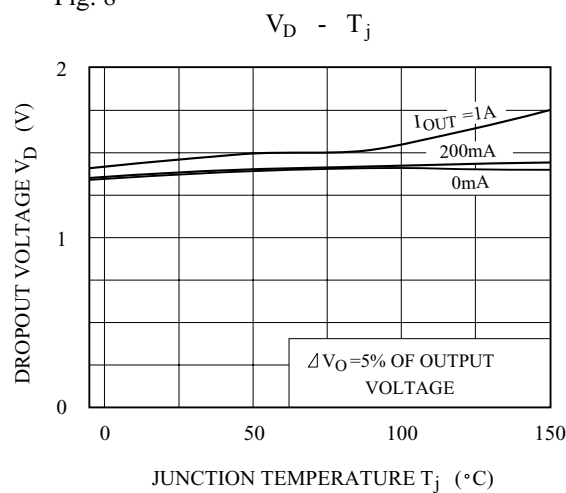
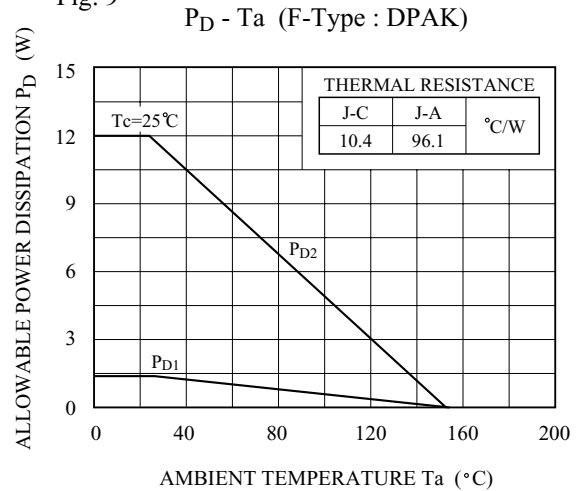


Fig. 9



KIA7905F/PI~KIA7924F/PI

