## 1A THREE TERMINAL NEGATIVE VOLTAGE REGULATORS
-5V, -6V, -7V, -8V, -9V, -10V, -12V, -15V, -18V, -20V, -24V.
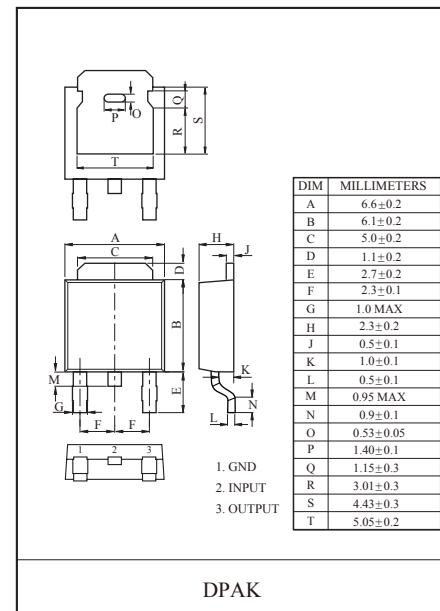
FEATURES
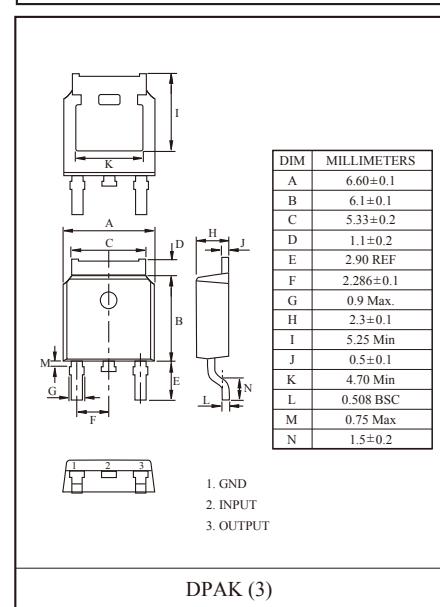
· Suitable for C-MOS, TTL, and the other digital IC power supply.
  Internal thermal overload protecting.
· Internal short circuit current limiting.
· Output current in excess of 1.0A.
· Suffix <u>U</u> : Qualified to AEC-Q100.
      ex) KIA79**F-RTF/P<u>U</u>

LINE-UP
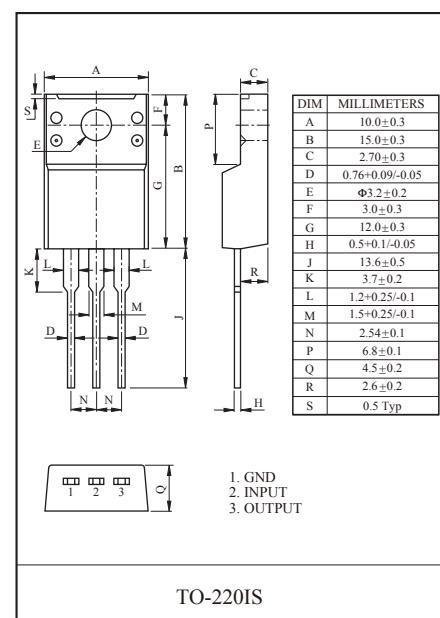
ITEM	OUTPUT VOLTAGE (Typ.)	PACKAGE
KIA7905F/PI	-5	
KIA7906F/PI	-6	
KIA7907F/PI	-7	
KIA7908F/PI	-8	
KIA7909F/PI	-9	F : DPAK
KIA7910F/PI	-10	DPAK(3)
KIA7912F/PI	-12	PI : TO-220IS
KIA7915F/PI	-15	
KIA7918F/PI	-18	
KIA7920F/PI	-20	
KIA7924F/PI	-24	

MAXIMUM RATING (Tc=25℃)

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	-40~150	℃
Operating Temperature		T_{opr}	-40~ 85	℃
Storage Temperature		T_{stg}	-55~150	℃

DIM	MILLIMETERS
A	6.6±0.2
B	6.1±0.2
C	5.0±0.2
D	1.1±0.2
E	2.7±0.2
F	2.3±0.1
G	1.0 MAX
H	2.3±0.2
J	0.5±0.1
K	1.0±0.1
L	0.5±0.1
M	0.95 MAX
N	0.9±0.1
O	0.53±0.05
P	1.40±0.1
Q	1.15±0.3
R	3.01±0.3
S	4.43±0.3
T	5.05±0.2

1. GND
2. INPUT
3. OUTPUT

DPAK

DIM	MILLIMETERS
A	6.60±0.1
B	6.1±0.1
C	5.33±0.2
D	1.1±0.2
E	2.90 REF
F	2.286±0.1
G	0.9 Max.
H	2.3±0.1
I	5.25 Min
J	0.5±0.1
K	4.70 Min
L	0.508 BSC
M	0.75 Max
N	1.5±0.2

1. GND
2. INPUT
3. OUTPUT

DPAK (3)

DIM	MILLIMETERS
A	10.0±0.3
B	15.0±0.3
C	2.70±0.3
D	0.76+0.09/-0.05
E	Φ3.2±0.2
F	3.0±0.3
G	12.0±0.3
H	0.5+0.1/-0.05
J	13.6±0.5
K	3.7±0.2
L	1.2+0.25/-0.1
M	1.5+0.25/-0.1
N	2.54±0.1
P	6.8±0.1
Q	4.5±0.2
R	2.6±0.2
S	0.5 Typ

1. GND
2. INPUT
3. OUTPUT

TO-220IS

EQUIVALENT CIRCUIT

ELECTRICAL CHARACTERISTICS
KIA7905F/PI
(Unless otherwise specified, V_{IN}=-10V, I_{OUT}=500mA, 0 T_j 125 , C_{IN}=2.2μF, C_{OUT}=1μF)

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	I_{BI}	Fig.1	-25V V_{IN} -8V		-	0.1	1.3	mA
	I_{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

ELECTRICAL CHARACTERISTICS
KIA7906F/PI
(Unless otherwise specified, V_{IN}=-11V, I_{OUT}=500mA, 0 T_j 125 , C_{IN}=2.2μF, C_{OUT}=1μF)

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	I_{BI}	Fig.1	-25V V_{IN} -9V		-	-	1.3	mA
	Load	I_{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 T_j 125 , C_{IN}=2.2μF, C_{OUT}=1μF)

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	I_{BI}	Fig.1	-25V V_{IN} -9V		-	-	1.0	mA
	Load	I_{BO}		5mA I_{OUT} 1.0A		-	-	0.5	
Output Noise Voltage		V_{NO}	Fig.2	Ta=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

ELECTRICAL CHARACTERISTICS
KIA7908F/PI

(Unless otherwise specified, V_{IN}=-14V, I_{OUT}=500mA, 0 ≤ T_j ≤ 125 , C_{IN}=2.2μF, C_{OUT}=1μF)

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	I_{BI}	Fig.1	-25V ≤ V_{IN} ≤ -11.5V		-	0.1	1.0	mA
	Load	I_{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 $\leq$ T_j $\leq$ 125 , C_{IN}=2.2μF, C_{OUT}=1μF)

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 $\leq$ V_{IN} $\leq$ -13V	-	5	90	mV
					-26V $\leq$ V_{IN} $\leq$ -11.5V	-	10	100	
Load Regulation		Reg load	Fig.1	T_j=25	5mA $\leq$ I_{OUT} $\leq$ 1.5A	-	10	150	mV
					250mA $\leq$ I_{OUT} $\leq$ 750mA	-	5	120	
Output Voltage		V_{OUT}	Fig.1	-24V $\leq$ V_{IN} $\leq$ -11.5V 5mA $\leq$ I_{OUT} $\leq$ 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	I_{BI}	Fig.1	-26.5V $\leq$ V_{IN} $\leq$ -13V		-	0.1	1.0	mA
	Load	I_{BO}		5mA $\leq$ I_{OUT} $\leq$ 1.0A		-	0.05	0.5	
Output Noise Voltage		V_{NO}	Fig.2	Ta=25 , 10Hz $\leq$ f $\leq$ 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 T_j 125 , C_{IN}=2.2μF, C_{OUT}=1μF)

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	I_{BI}	Fig.1	-27.5V V_{IN} -14V		-	0.1	1.0	mA
	Load	I_{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

ELECTRICAL CHARACTERISTICS
KIA7912F/PI
(Unless otherwise specified, V_{IN}=-18V, I_{OUT}=500mA, 0 $\leq$ T_j $\leq$ 125, C_{IN}=2.2μF, C_{OUT}=1μF)

CHARACTERISTIC		SYMBOL	TEST CIRCUIT	TEST CONDITION		MIN.	TYP.	MAX.	UNIT
Output Voltage		V_{OUT}	Fig.1	T_j=25		-12.5	-12	-11.5	V
Input Regulation		Reg line	Fig.1	T_j=25	-22V $\leq$ V_{IN} $\leq$ -16V	-	6	120	mV
					-30V $\leq$ V_{IN} $\leq$ -14.5V	-	12	240	
Load Regulation		Reg load	Fig.1	T_j=25	5mA $\leq$ I_{OUT} $\leq$ 1.5A	-	12	240	mV
					250mA $\leq$ I_{OUT} $\leq$ 750mA	-	4	120	
Output Voltage		V_{OUT}	Fig.1	-27V $\leq$ V_{IN} $\leq$ -15.5V 5mA $\leq$ I_{OUT} $\leq$ 1.0A		-12.6	-12	-11.4	V
Quiescent Current		I_B	Fig.1	T_j=25		-	3	6	mA
Quiescent Current Change	Line	I_{BI}	Fig.1	-30V $\leq$ V_{IN} $\leq$ -15V		-	0.1	1.0	mA
	Load	I_{BO}		5mA $\leq$ I_{OUT} $\leq$ 1.0A		-	0.05	0.5	
Output Noise Voltage		V_{NO}	Fig.2	Ta=25, 10Hz $\leq$ f $\leq$ 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		-	1.9	-	A
Average Temperature Coefficient of Output Voltage		T_{CVO}	Fig.1	I_{OUT}=5mA		-	-0.8	-	mV/
Dropout Voltage		V_D	Fig.1	T_j=25, I_{OUT}=1A		-	2.0	-	V

KIA7905F/PI~KIA7924F/PI

ELECTRICAL CHARACTERISTICS
KIA7915F/PI

(Unless otherwise specified, V_{IN}=-23V, I_{OUT}=500mA, 0 T_j 125 , C_{IN}=2.2μF, C_{OUT}=1μF)

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	I_{BI}	Fig.1	-30V V_{IN} -17.5V		-	0.1	1.0	mA
	Load	I_{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 T_j 125 , C_{IN}=2.2μF, C_{OUT}=1μF)

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	I_{BI}	Fig.1	-33V V_{IN} -22V		-	-	1.0	mA
	Load	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 ≤ T_j ≤ 125 , C_{IN}=2.2μF, C_{OUT}=1μF)

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	I_{BI}	Fig.1	-36.5V ≤ V_{IN} ≤ -25V		-	-	1.0	mA
	Load	I_{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
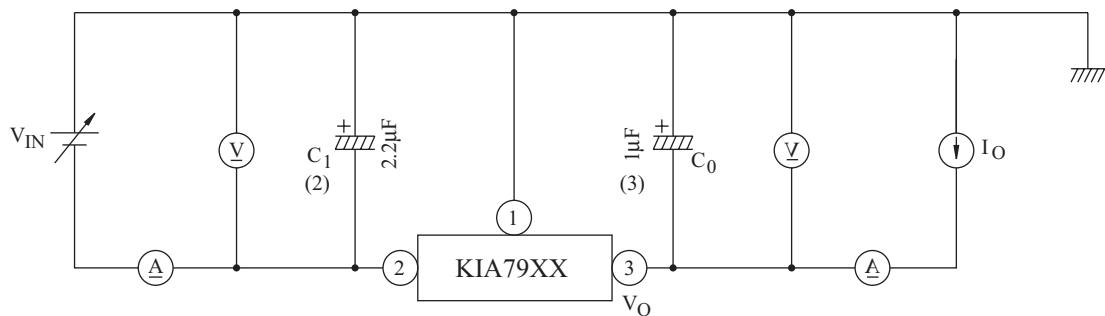
ELECTRICAL CHARACTERISTICS
KIA7924F/PI
(Unless otherwise specified, V_{IN}=-33V, I_{OUT}=500mA, 0 ≤ T_j ≤ 125 , C_{IN}=0.33μF, C_{OUT}=0.1μF)

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	I_{BI}	Fig.1	-38V ≤ V_{IN} ≤ -27V		-	-	1.0	mA
	Load	I_{BO}		5mA ≤ I_{OUT} ≤ 1.0A		-	-	0.5	
Output Noise Voltage		V_{NO}	Fig.2	Ta=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

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 alumininum electrolitics are used, at least ten times value shown should be selected. C_I 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 (1N4001 or similar) should be introduced to protect the device from momentary iput short circuit.

Fig.2 V_{NO} Test Circuit
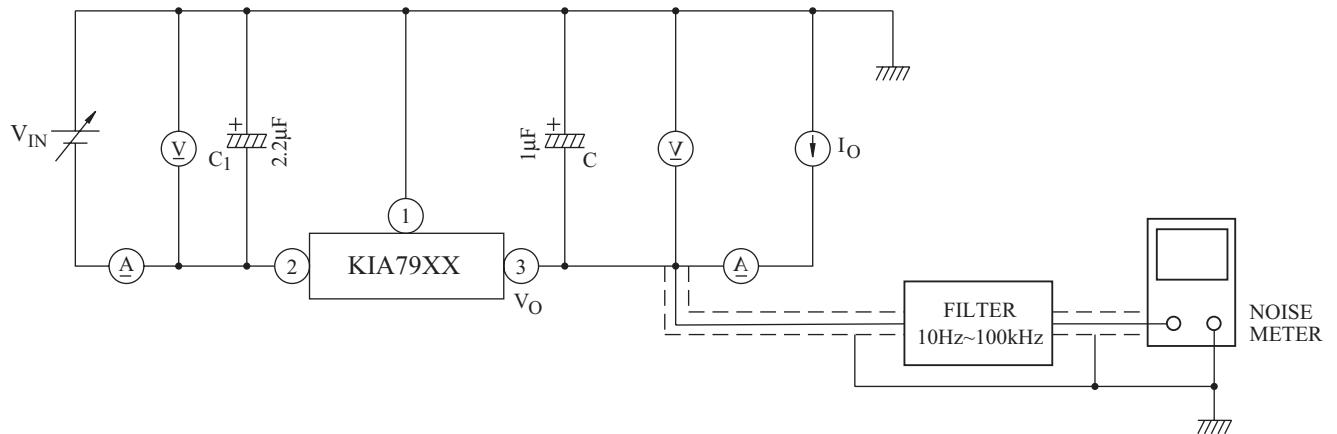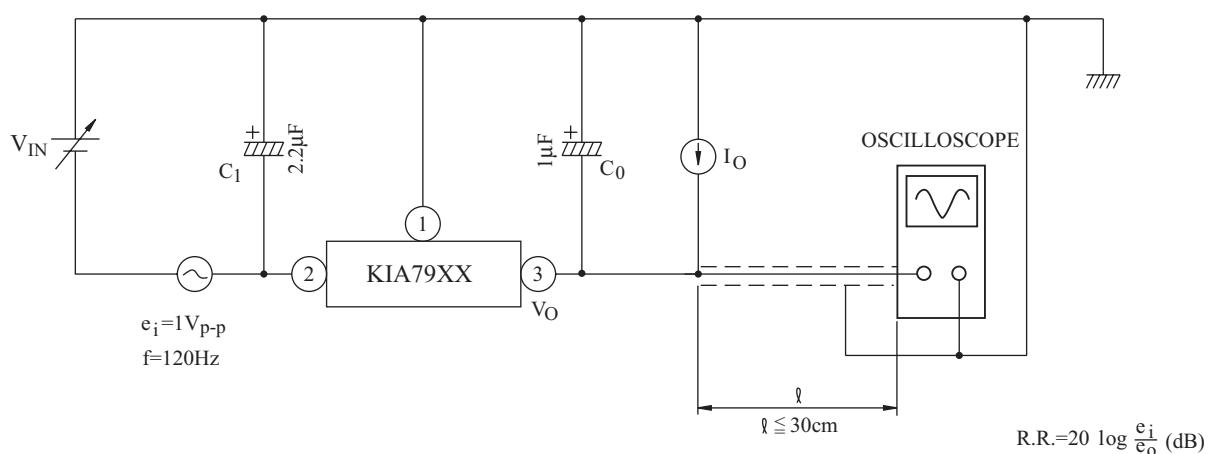
Fig.3 Ripple Rejection Test Circuit

$e_i = 1V_{p-p}$
$f = 120Hz$

$\ell \leqq 30cm$

$R.R. = 20 \ \log \frac{e_i}{e_o} \ (dB)$

Fig. 4

I_B - T_j
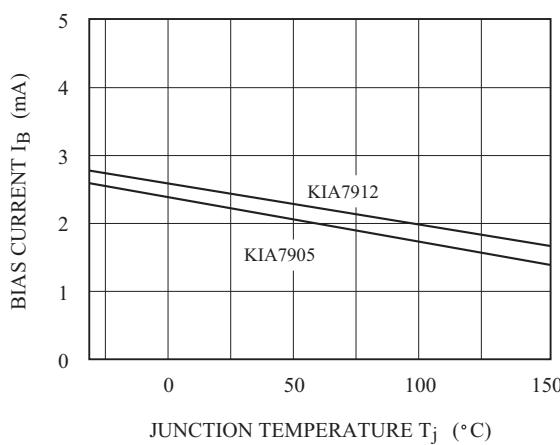
Fig. 5

V_{OUT} - T_j
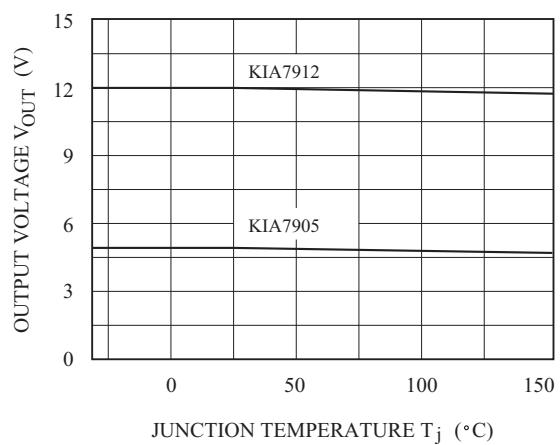
Fig. 6

RR - I_{OUT}
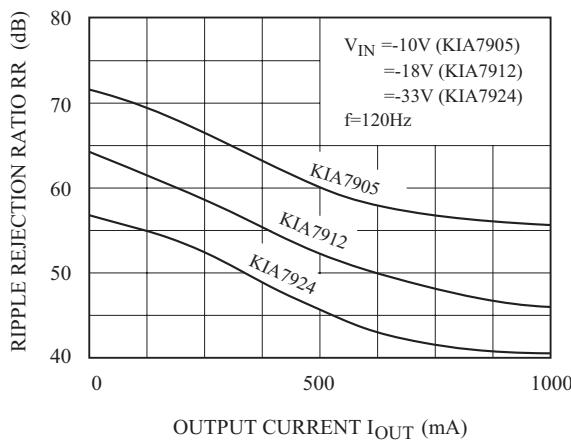
Fig. 7

I_{SC} - V_{IN}
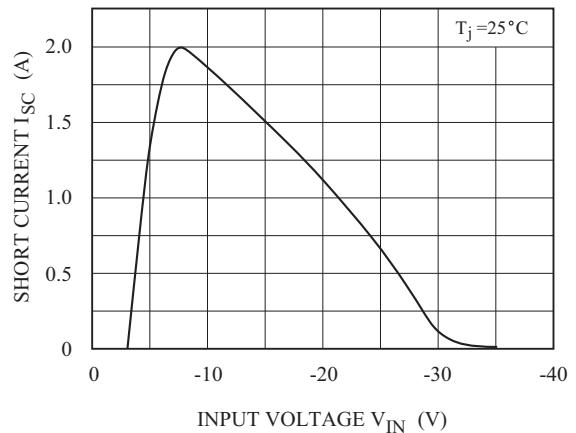
Fig. 8

V_D - T_j
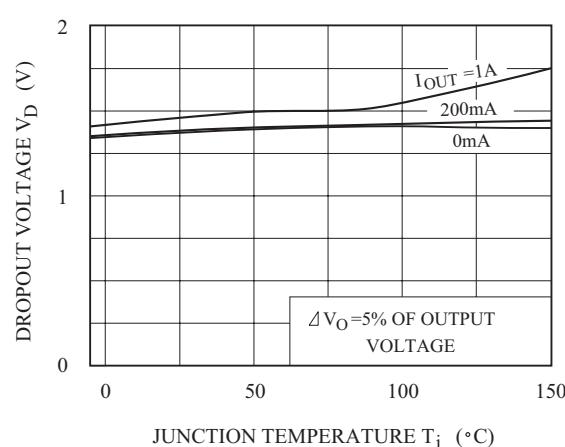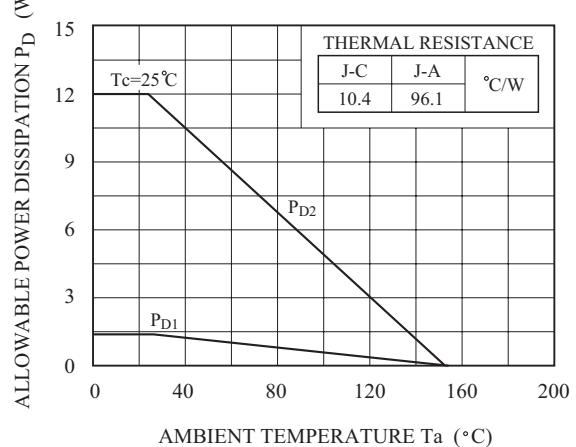
Fig. 9

P_D - Ta (F-Type : DPAK)

KIA7905F/PI~KIA7924F/PI

P_D - Ta (PI-Type : TO-220IS)

ALLOWABLE POWER DISSIPATION P_D (W)

THERMAL RESISTANCE		
J-C	J-A	°C/W
6.0	62.5	

Tc=25 °C

P_{D2}

P_{D1}

20

10

0

0   50   100   150

AMBIENT TEMPERATURE Ta (°C)