

## 4 TERMINAL 2A OUTPUT LOW DROP VOLTAGE REGULATOR

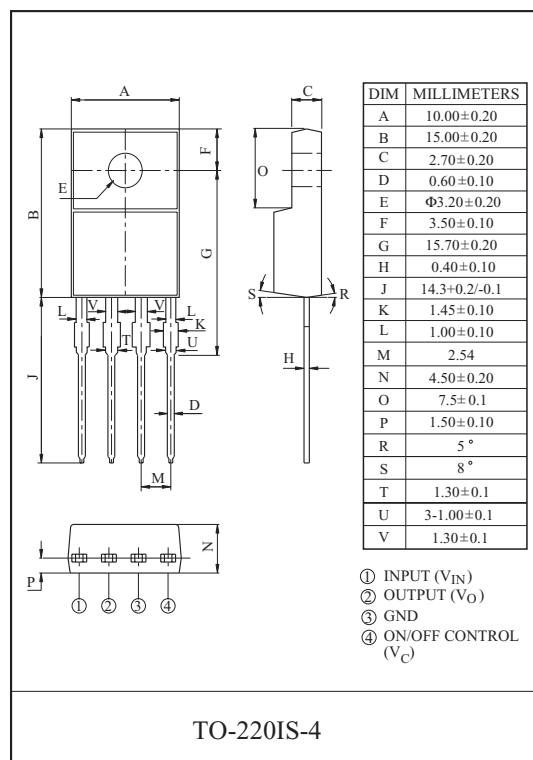
The KIA278R × × Series are Low Drop Voltage Regulator suitable for various electronic equipments. It provides constant voltage power source with TO-220-4 terminal lead full molded PKG. The Regulator has multi function such as over current protection, overheat protection and ON/OFF control.

### FEATURES

- 2.0A Output Low Drop Voltage Regulator.
- Built in ON/OFF Control Terminal.
- Built in Over Current Protection, Over Heat Protection Function.

### LINE UP

ITEM	OUTPUT VOLTAGE (Typ.)	UNIT
KIA278R05PI	5	V
KIA278R06PI	6	
KIA278R08PI	8	
KIA278R09PI	9	
KIA278R10PI	10	
KIA278R12PI	12	
KIA278R15PI	15	



### MAXIMUM RATINGS (Ta=25 °C)

CHARACTERISTIC	SYMBOL	RATING	UNIT	Remark
Input Voltage	V <sub>IN</sub>	35	V	-
ON/OFF Control Voltage	V <sub>C</sub>	35	V	-
Output Current	I <sub>O</sub>	2	A	-
Power Dissipation 1	P <sub>d1</sub>	1.5	W	No heatsink
Power Dissipation 2	P <sub>d2</sub>	15	W	with heatsink
Operating Junction Temperature	T <sub>J(opr)</sub>	-40~150	°C	-
Storage Temperature	T <sub>stg</sub>	-45~150	°C	-
Soldering Temperature (10sec)	T <sub>sol</sub>	260	°C	-



# KIA278R05PI~KIA278R15PI

Fig. 1 Standard Test Circuit

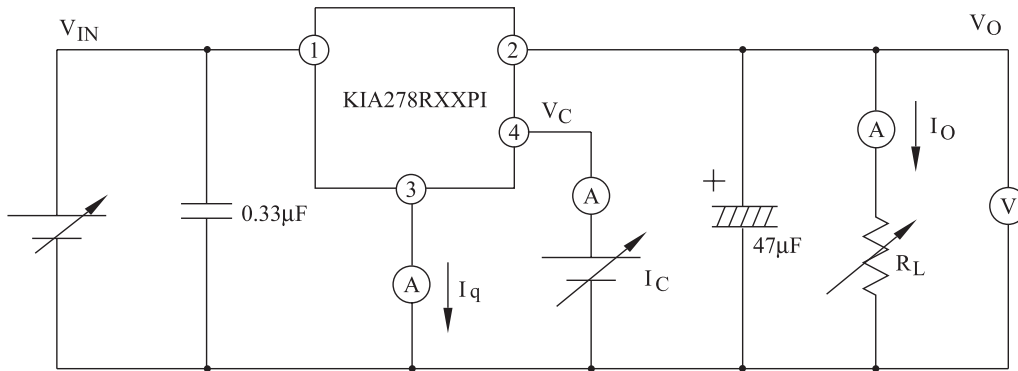


Fig. 1-2 Ripple Rejection Test Circuit

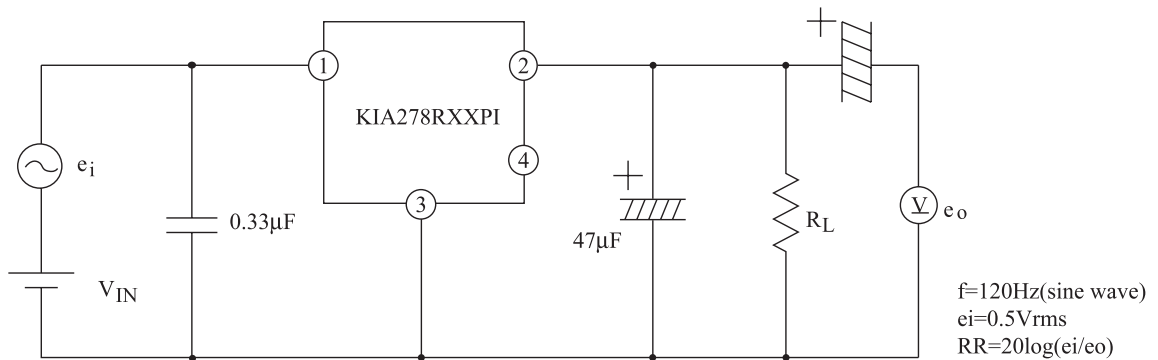
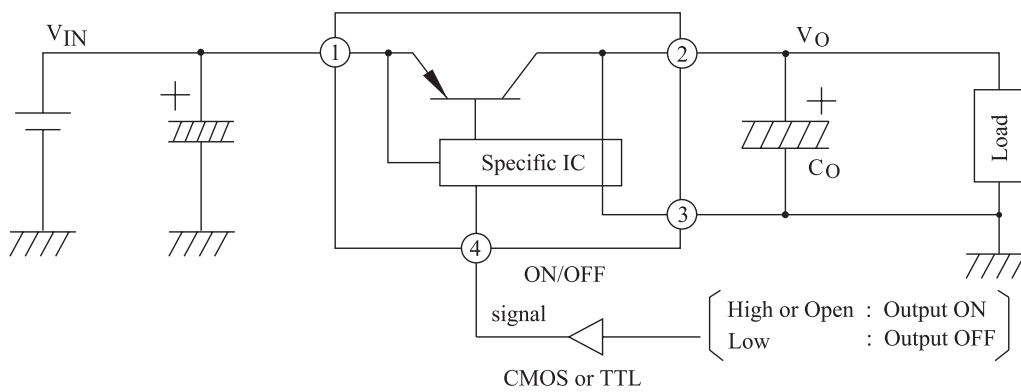
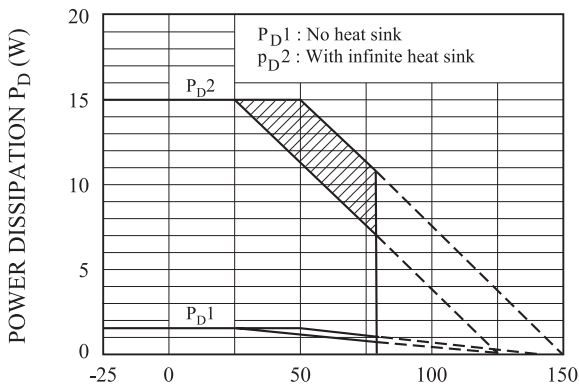


Fig. 2 Application Circuit for Standard



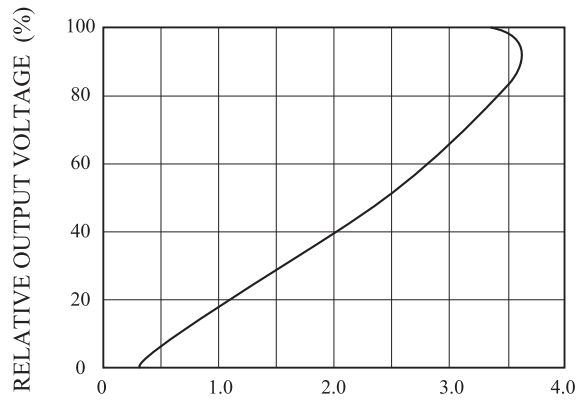
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Fig.3  $T_a - P_D$



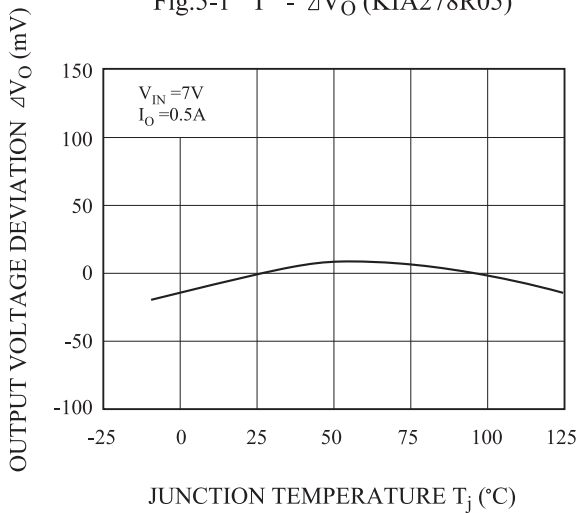
AMBIENT TEMPERATURE  $T_a$  (°C)  
 Note) Oblique line portion : Overheat protection may operate in this area.

Fig.4  $I_O - V_O$



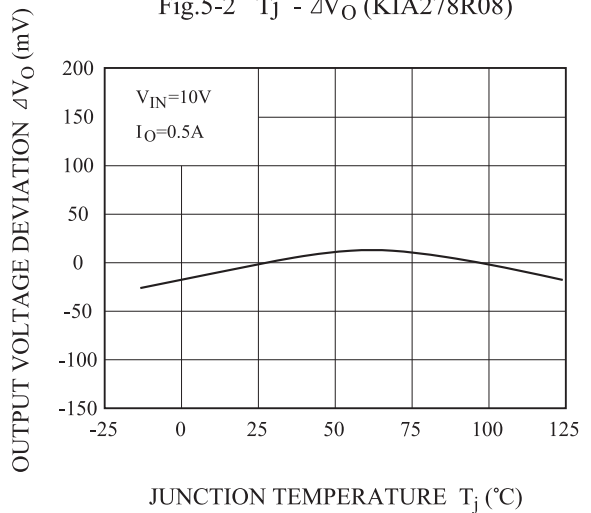
OUTPUT CURRENT  $I_O$  (A)

Fig.5-1  $T_j - \Delta V_O$  (KIA278R05)



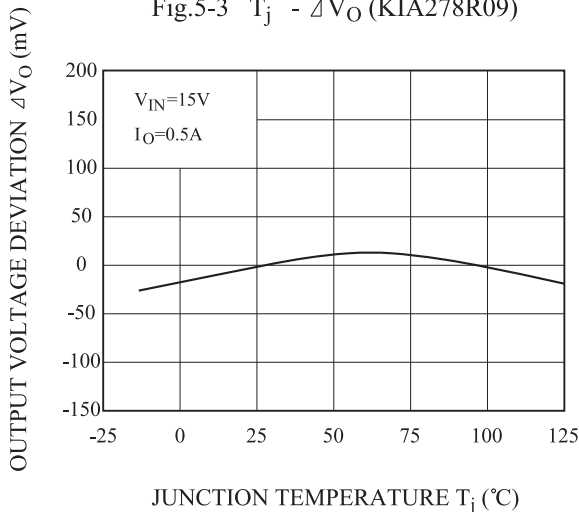
JUNCTION TEMPERATURE  $T_j$  (°C)

Fig.5-2  $T_j - \Delta V_O$  (KIA278R08)



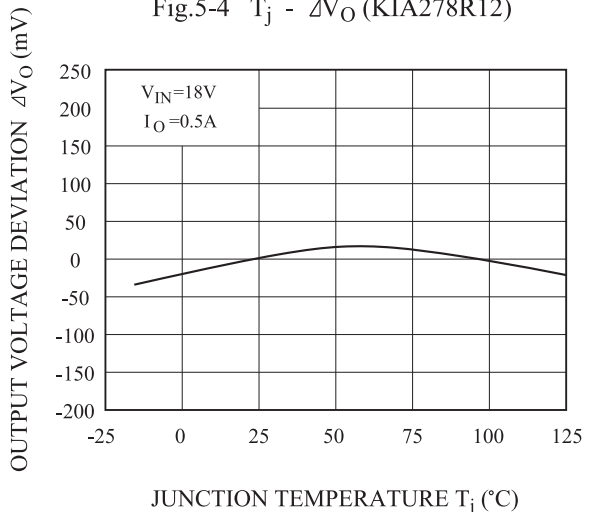
JUNCTION TEMPERATURE  $T_j$  (°C)

Fig.5-3  $T_j - \Delta V_O$  (KIA278R09)



JUNCTION TEMPERATURE  $T_j$  (°C)

Fig.5-4  $T_j - \Delta V_O$  (KIA278R12)



JUNCTION TEMPERATURE  $T_j$  (°C)

# KIA278R05PI~KIA278R15PI

Fig.5-5  $T_j - \Delta V_O$  (KIA278R15)

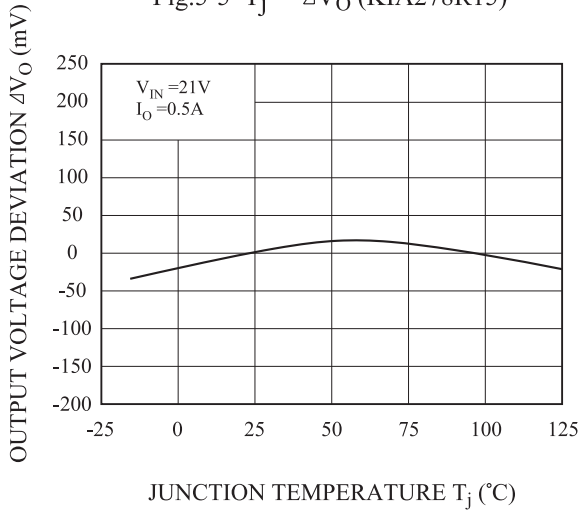


Fig.6-1  $T_j - V_O$  (KIA278R05)

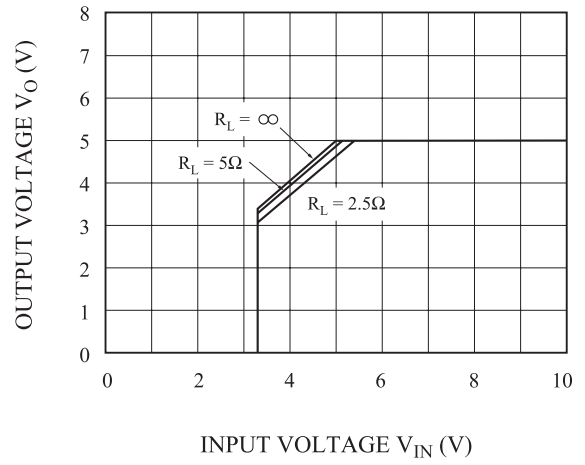


Fig.6-2  $V_{IN} - V_O$  (KIA278R08)

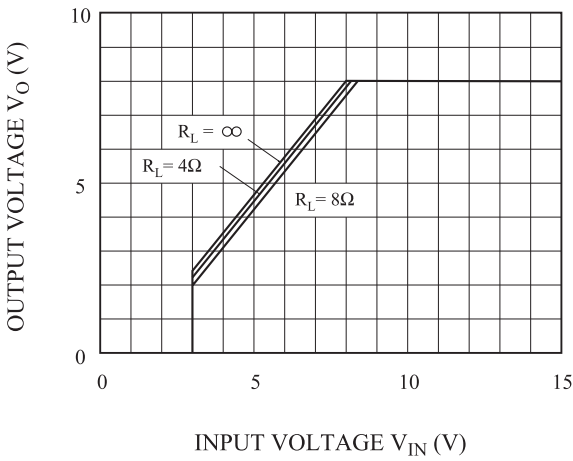


Fig.6-3  $V_{IN} - V_O$  (KIA278R09)

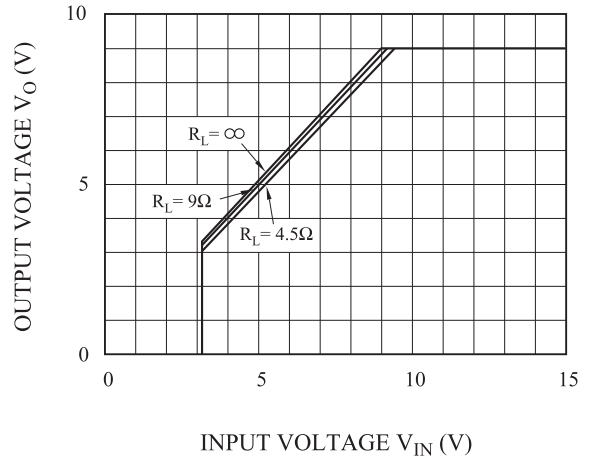


Fig.6-4  $V_{IN} - V_O$  (KIA278R12)

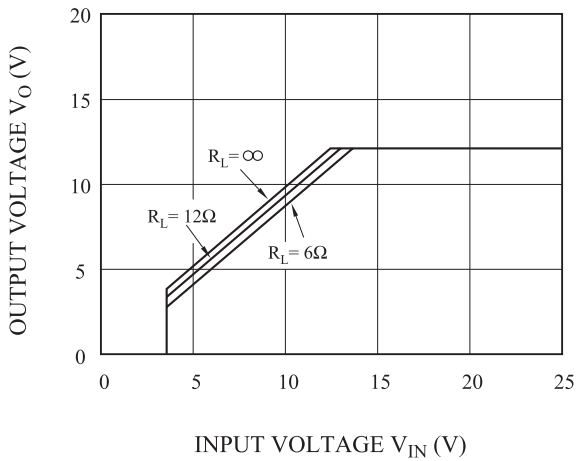
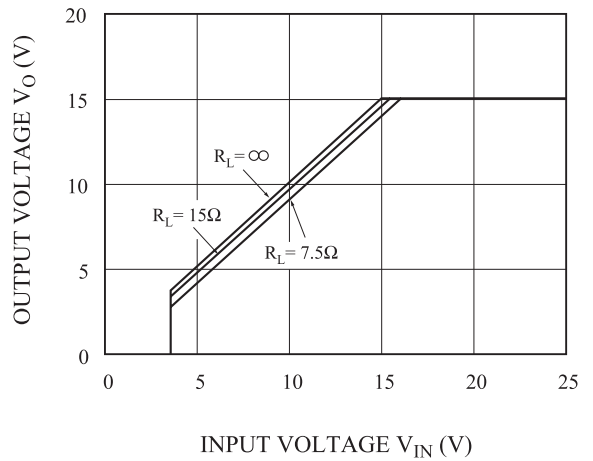
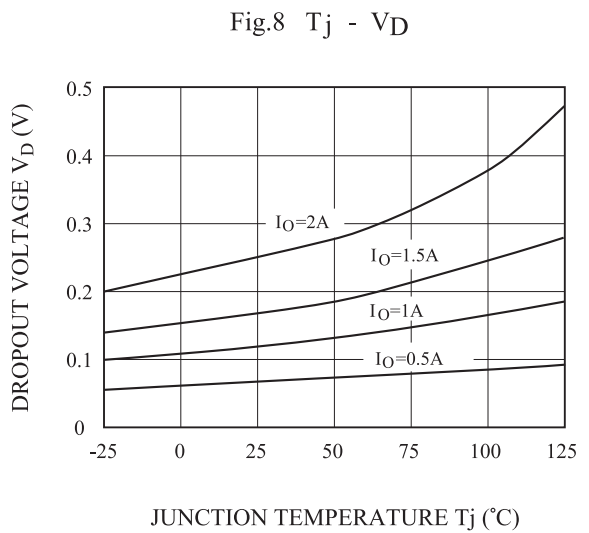
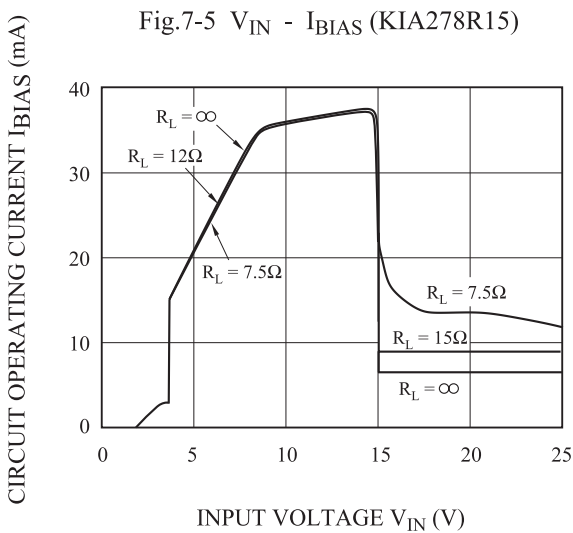
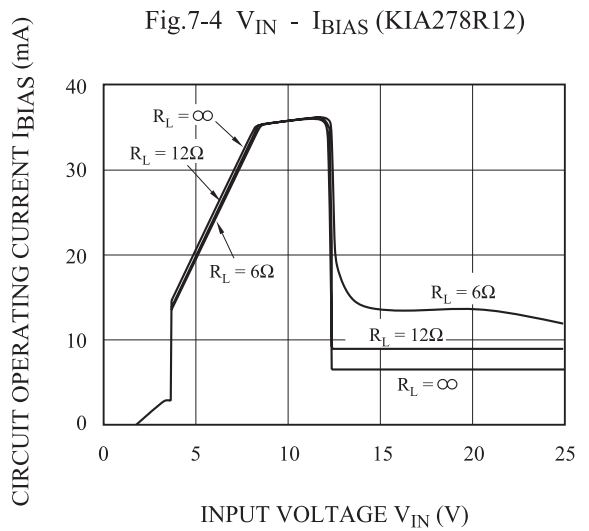
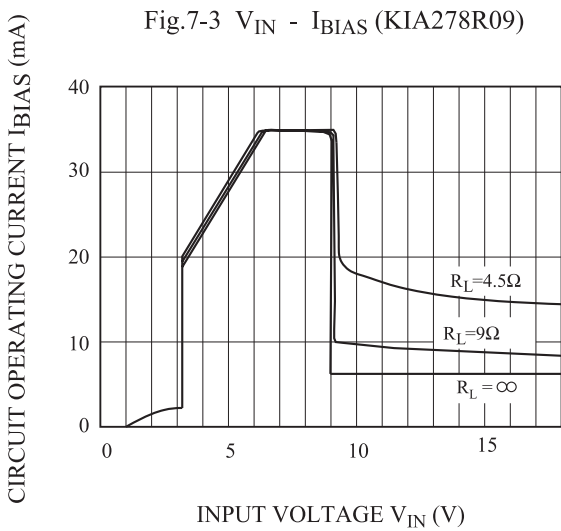
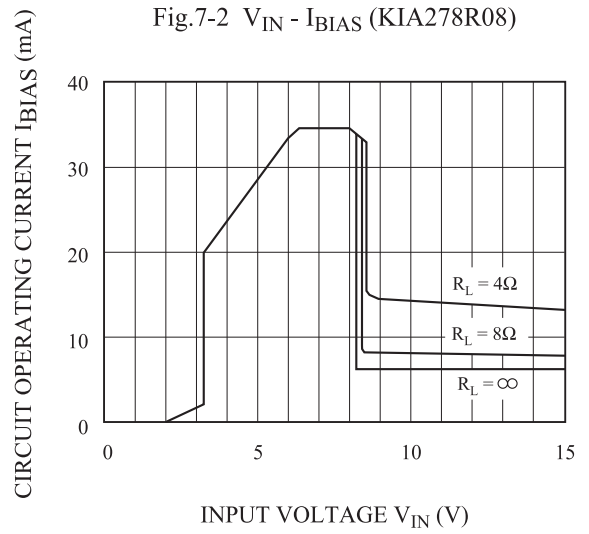
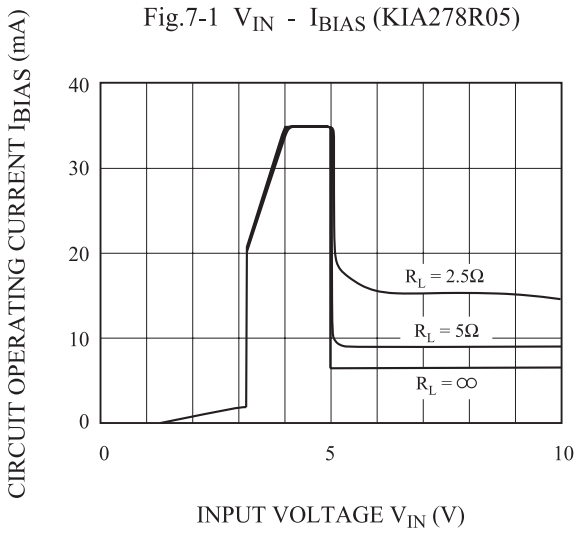


Fig.6-5  $V_{IN} - V_O$  (KIA278R15)



# KIA278R05PI~KIA278R15PI



# KIA278R05PI~KIA278R15PI

Fig.9  $T_j$  -  $I_q$

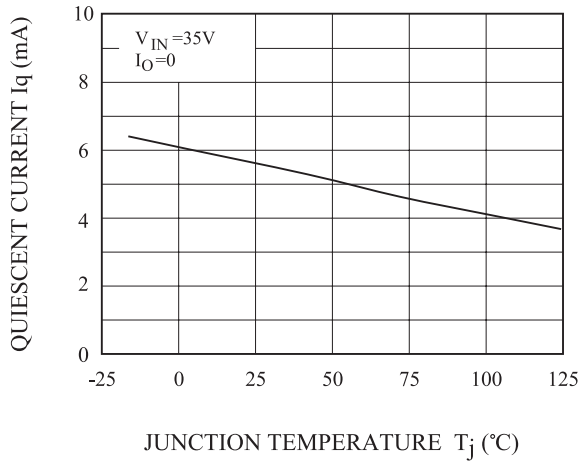


Fig. 10-1  $f$  - RR

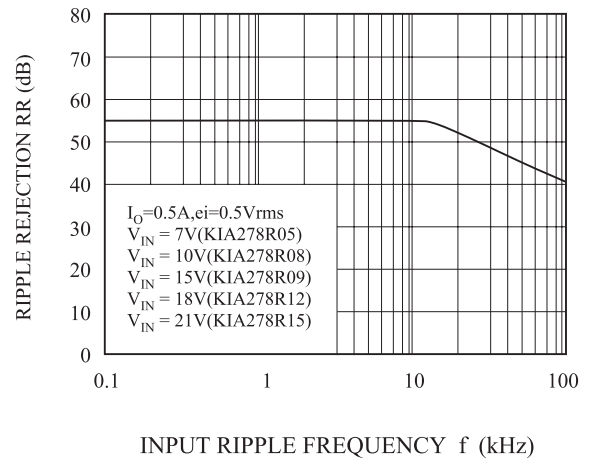


Fig.10-2  $I_O$  - RR

