Switchable Current Regulators

General Features

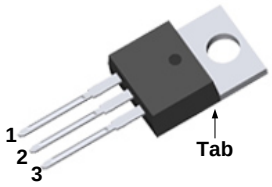
- On/Off Switchable Current Source
- Fast Switching Speed
- RoHS Compliant
- Halogen-free available

V_{AK}	$R_{AK(typ)}$	I_A
600 V	**55kΩ**	**1 ~ 100 mA**

Applications

- SMPS Start-up Circuit
- Highly Stable Voltage Source
- Surge Limiters and Voltage Protection
- Fast Reacting Resetable Fuses
- Soft Start Circuits

TO-220AB



Pin Connections

1 = G, Control Terminal;
2 and Tab =A (+), Positive Terminal;
3 = K (-), Negative Terminal

Ordering Information

Part Number	Package	Marking
AKP10M60R	TO-220	10M60

Absolute Maximum Ratings

T_A=25℃ unless otherwise specified

Symbol	Test Conditions	AKP10M60R	Unit
V_{AKR}	T_J = 25℃ to 150℃	600	V
V_{AGK}	T_J = 25℃ to 150℃	600	V
I_A	Tc = 25℃	0.1	A
P_D	Tc = 25℃	40	W
V_{GkR}		±20	V
T_L	Soldering Temperature Distance of 1.6mm from case for 10 seconds	300	℃
T_J and T_{STG}	Operating and Storage Temperature	-55 to 150	

Electrical Characteristics

T_A =25℃ unless otherwise specified

Symbol	Test Conditions	Min.	Typ.	Max.	Unit
V_{AKR}	R_K = 300Ω, (Fig.1)	600	--	--	V
$I_{A(P)}$	V_D = 10V, R_K = 300Ω, (Fig.1)	--	10	--	mA
$V_{GK(OFF)}$	$I_{A(P)}$ = 100uA, V_D=600V, (Fig.2)	-5.5	--	-3.5	V
$I_{A(P)}$	V_D = 480V, V_{GK} = -10V	--	--	20	uA
$\Delta V_{AK}/\Delta I_{A(P)}$	Dynamic Resistance, V_D = 100V, V_{GK}=0V	10	--	--	kΩ
$R_{\theta JC}$	Thermal Resistance, Junction-to-Case			3.1	K/W
$R_{\theta JA}$	Thermal Resistance, Junction-to-Ambient			80	K/W

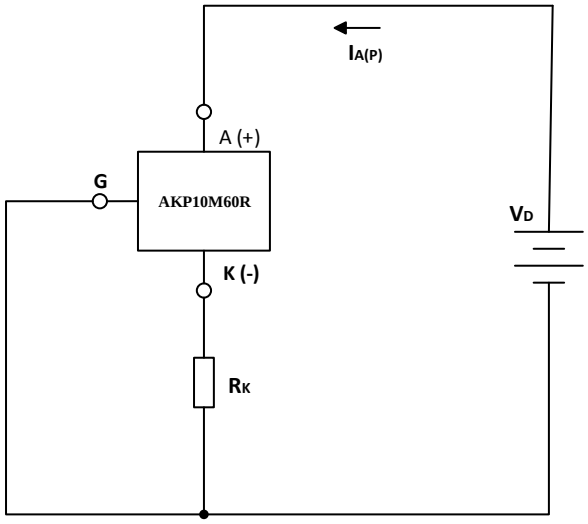


Fig.1. Resistor R_K in Series with Negative Pin to Achieve Different Current Levels

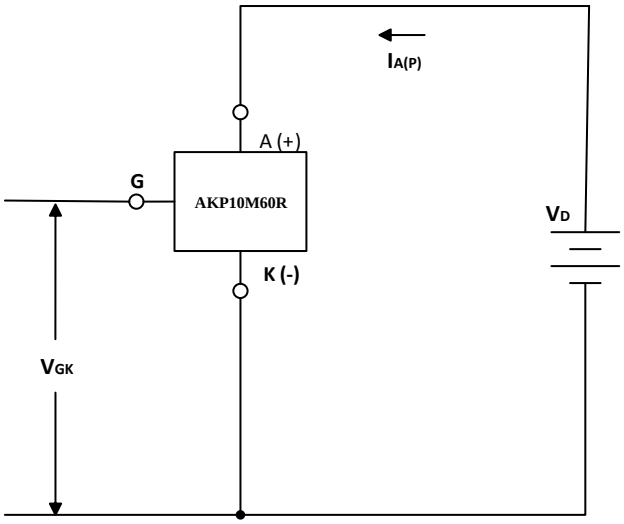
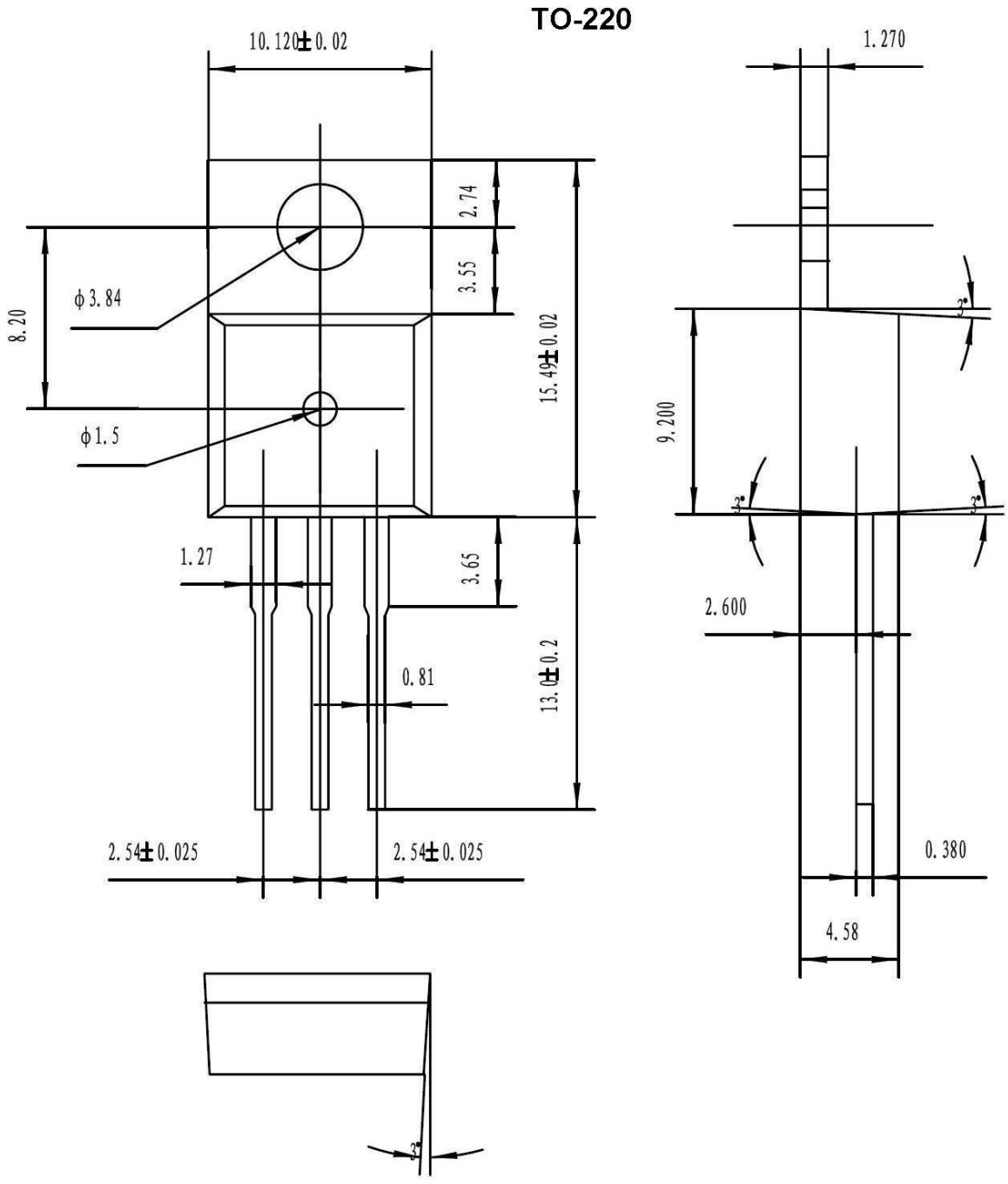


Fig.2. Current Regulator Controlled by V_{GK}

Package Dimensions

TO-220



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