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With the principle of "Quality Parts,Customers Priority,Honest Operation,and Considerate Service",our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

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Switchable Current Regulators

IXCP10M90S IXCY10M90S

$$V_{AK} = 900V$$

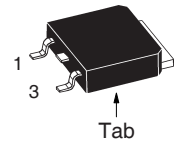
$$I_{A(p)} = 1 - 100mA$$

$$R_{AK(typ)} = 58k\Omega$$

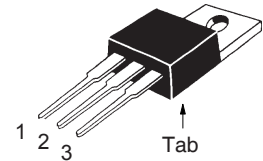
Symbol	Test Conditions	Maximum Ratings	
V_{AKR}	$T_J = 25^\circ C$ to $150^\circ C$	900	V
V_{AGR}	$T_J = 25^\circ C$ to $150^\circ C$	900	V
V_{GKR}		± 20	V
I_A	$T_C = 25^\circ C$	0.3	A
P_D	$T_C = 25^\circ C$	40	W
T_J		- 55 ... +150	$^\circ C$
T_{JM}		150	$^\circ C$
T_{stg}		- 55 ... +150	$^\circ C$
T_L	1.6mm (0.062 in.) from Case for 10s	300	$^\circ C$
T_{SOLD}	Plastic Body for 10s	260	$^\circ C$
M_d	Mounting Torque (TO-220)	1.13 / 10	Nm/lb.in.
Weight	TO-252	0.35	g
	TO-220	3.00	g

Symbol	Test Conditions ($T_J = 25^\circ C$, Unless Otherwise Specified)	Characteristic Values		
		Min.	Typ.	Max.
V_{AKR}	$R_K = 300\Omega$, (Fig. 1)	900		V
$I_{A(p)}$	$V_D = 10V$, $R_K = 300\Omega$, (Fig. 1)	7	9	15 mA
$V_{GK(off)}$	$I_{A(p)} = 100\mu A$, $V_D = 900V$, (Fig. 3)	- 5		V
$I_{A(p)}$	$V_D = 720V$, $V_{GK} = -10V$			25 μA
$\Delta V_{AK} / \Delta I_{A(p)}$	Dynamic Resistance, $V_D = 100V$ $V_{GK} = 0V$	30		k Ω
R_{thJC}	Thermal Resistance Junction-to-Case			3.1 K/W
R_{thJA}	Thermal Resistance Junction-to-Ambient	TO-220		80 K/W
		TO-252		100 K/W

TO-252 (IXCY)



TO-220AB (IXCP)



Pin connections

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

Features

- 40W Continuous Dissipation
- International Standard Packages JEDEC TO-220 and TO-252
- On/Off Switchable Current Source

Applications

- Start-Up Circuits for SMPS
- Highly Stable Voltage Sources
- Surge Limiters and Voltage Protection
- Fast Reacting Resettable Fuses
- Soft Start-Up Circuits

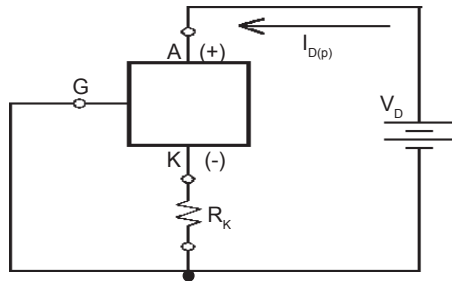


Fig. 1 Resistor R_K in Series with Negative Pin to Achieve Different Current Levels

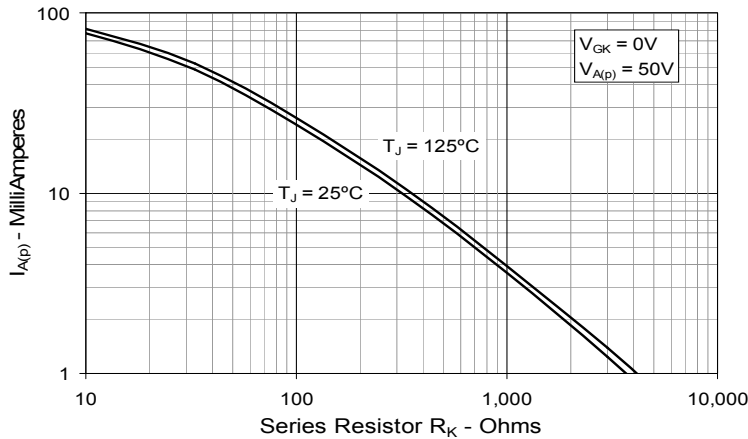


Fig. 2. Plateau Current vs. External Resistance

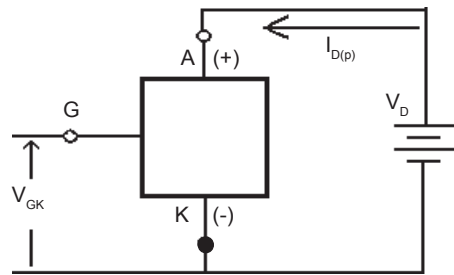


Fig. 3. Current Regulator Controlled by V_{GK}

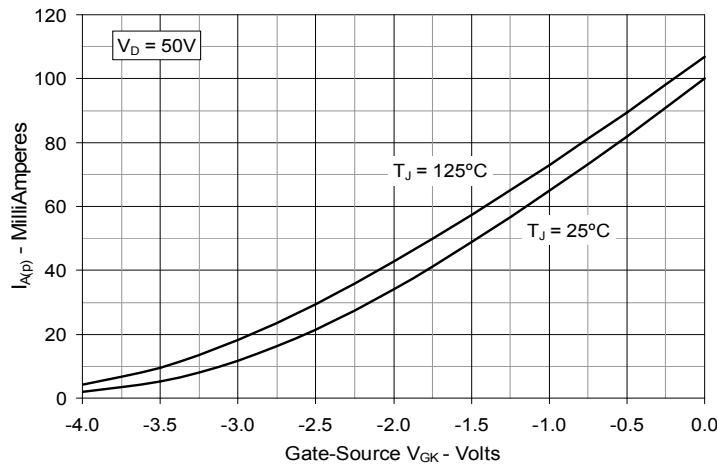
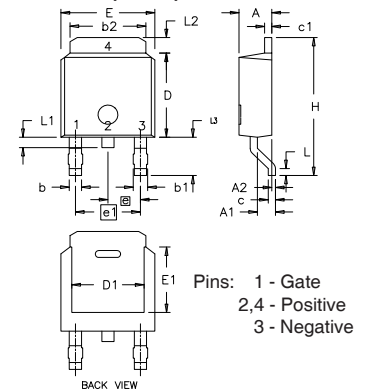


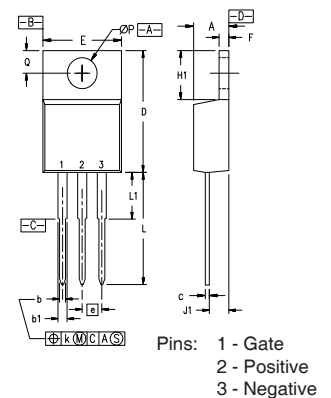
Fig. 4. Plateau Current vs. Applied Input Voltage

TO-252 AA (IXCY)



Dim.	Millimeter		Inches	
	Min.	Max.	Min.	Max.
A	2.19	2.38	0.086	0.094
A1	0.89	1.14	0.035	0.045
A2	0	0.13	0	0.005
b	0.64	0.89	0.025	0.035
b1	0.76	1.14	0.030	0.045
b2	5.21	5.46	0.205	0.215
c	0.46	0.58	0.018	0.023
c1	0.46	0.58	0.018	0.023
D	5.97	6.22	0.235	0.245
D1	4.32	5.21	0.170	0.205
E	6.35	6.73	0.250	0.265
E1	4.32	5.21	0.170	0.205
e	2.28 BSC		0.090 BSC	
e1	4.57 BSC		0.180 BSC	
H	9.40	10.42	0.370	0.410
L	0.51	1.02	0.020	0.040
L1	0.64	1.02	0.025	0.040
L2	0.89	1.27	0.035	0.050
L3	2.54	2.92	0.100	0.115

TO-220 (IXCP) Outline



SYM	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	.170	.190	4.32	4.83
b	.025	.040	0.64	1.02
b1	.045	.065	1.15	1.65
c	.014	.022	0.35	0.56
D	.580	.630	14.73	16.00
E	.390	.420	9.91	10.66
e	.100 BSC		2.54 BSC	
F	.045	.055	1.14	1.40
H1	.230	.270	5.85	6.85
J1	.090	.110	2.29	2.79
k	0	.015	0	0.38
L	.500	.550	12.70	13.97
L1	.110	.230	2.79	5.84
ØP	.139	.161	3.53	4.08
Q	.100	.125	2.54	3.18

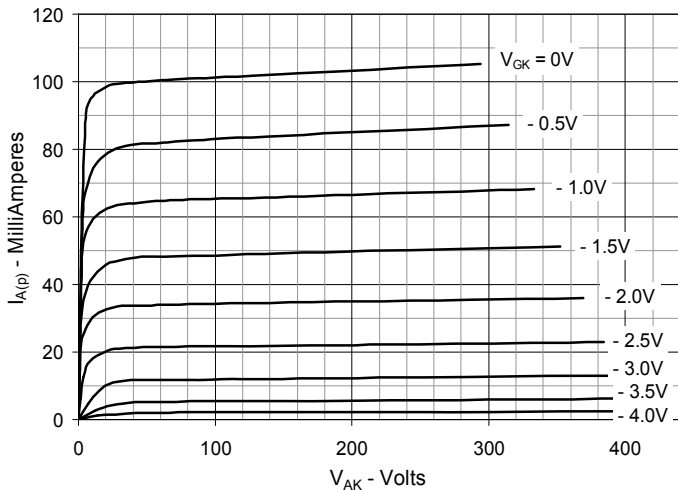


Fig. 5. Extended Output Curves @ $T_J = 25^\circ\text{C}$

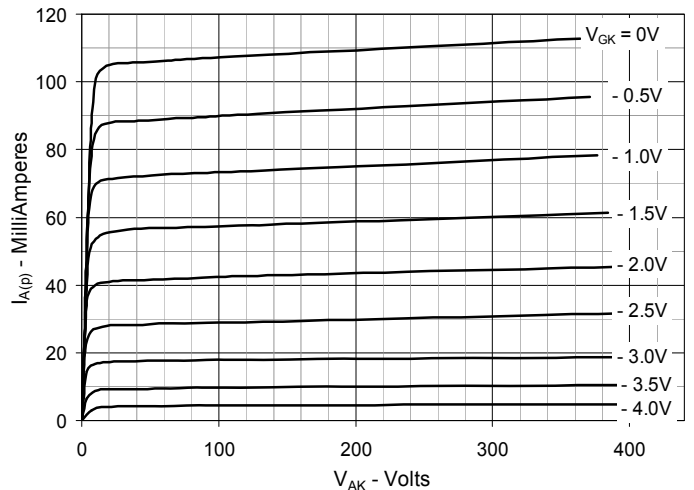


Fig. 6. Extended Output Curves @ $T_J = 125^\circ\text{C}$

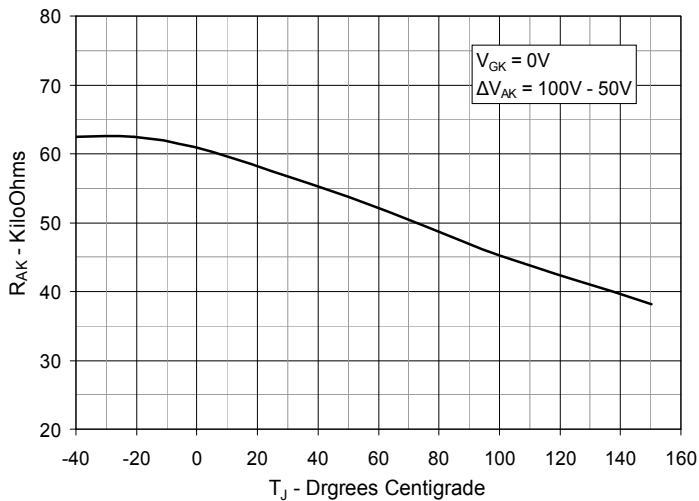


Fig. 7. Dynamic Resistance vs. Junction Temperature

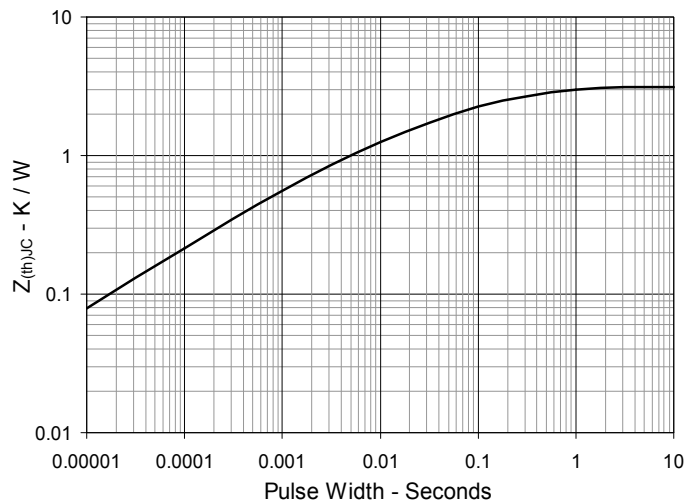


Fig. 8. Maximum Transient Thermal Resistance

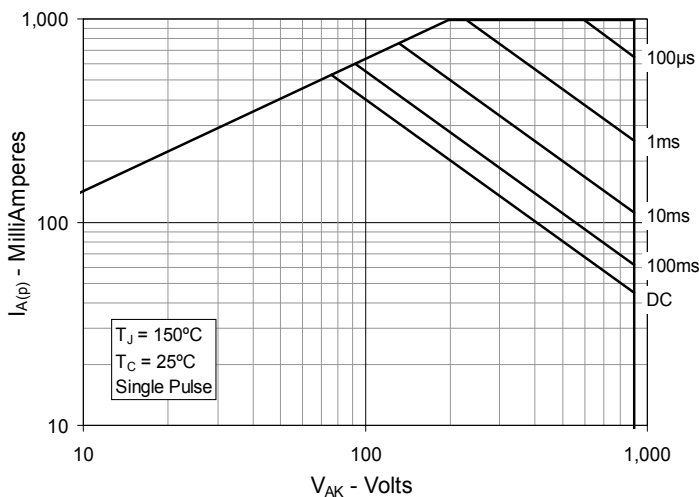


Fig. 9. Forward-Bias Safe Operating Area @ $T_C = 25^\circ\text{C}$

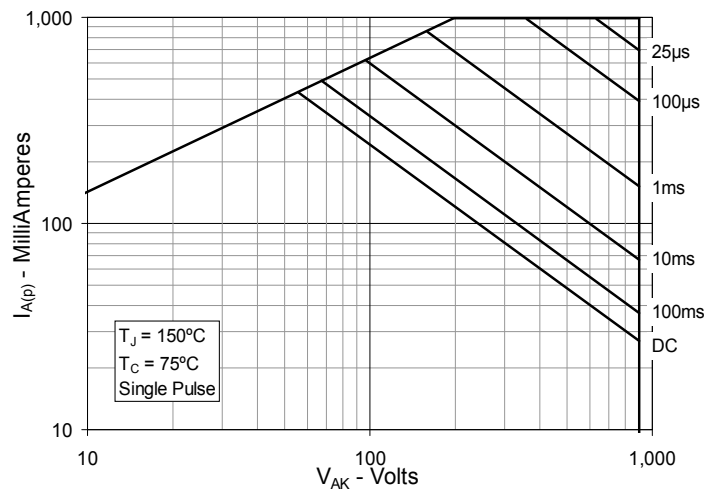


Fig. 10. Forward-Bias Safe Operating Area @ $T_C = 75^\circ\text{C}$