

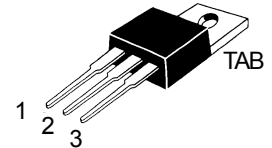
# Switchable Current Regulators

**IXCP10M90S**  
**IXCY10M90S**

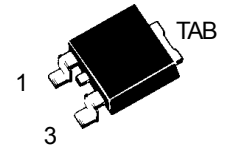
**$V_{AK} = 900\text{ V}$**   
 **$I_{A(P)} = 1 - 100\text{ mA}$**   
 **$R_{DYN} = 100\text{ k}\Omega$**

Symbol	Test Condition	Maximum Ratings	
$V_{AKR}$	$T_J = 25^\circ\text{C to } 150^\circ\text{C}$	900	V
$V_{AGR}$	$T_J = 25^\circ\text{C to } 150^\circ\text{C}$	900	V
$V_{GK}$		$\pm 20$	V
$I_D$	$T_C = 25^\circ\text{C}$	-0.3	A
$P_D$	$T_C = 25^\circ\text{C}$	40	W
$T_J$		-55 ... +150	$^\circ\text{C}$
$T_{stg}$		-55 ... +150	$^\circ\text{C}$
$T_L$	Temperature for Soldering (max. 10 s)	260	$^\circ\text{C}$
$M_D$	Mounting torque with screw M3 (TO-220) with screw M3.5 (TO-220)	0.45/4 0.55/5	Nm/lb.in.

**TO-220 AB (IXCP)**



**TO-252 AA (IXCY)**



### Pin connections

1 = Gate(G), Control terminal;  
2 and tab = A (+) Positive terminal  
3 = K (-), Negative terminal

Symbol	Test Condition	Characteristic Values ( $T_J = 25^\circ\text{C}$ unless otherwise specified)		
		min.	typ.	max.
$V_{AKR}$	$R_K = 300\ \Omega$ , (Fig. 1)	900		V
$I_{A(P)}$	$V_D = 10\text{ V}$ ; $R_K = 300\ \Omega$ ; (Fig. 2)	7	9	15 mA
$V_{GK(off)}$	$I_D = 100\ \mu\text{A}$ ; $V_D = 900\text{ V}$ Fig. 4	-5		V
$I_{D(P)}$	$V_D = 720\text{ V}$ ; $V_{GK} = -10\text{ V}$ (Fig. 1)			25 $\mu\text{A}$
$\Delta V_{AK} / \Delta I_{A(P)}$	Dynamic resistance; $V_D = 10\text{ V}$ $R_K = 300\ \Omega$ ; (Fig. 1)	100		k $\Omega$
$R_{thJC}$	Thermal Resistance junction-to-case			3.1 K/W
$R_{thJA}$	Thermal Resistance junction-to-ambient			80 K/W
				100 K/W

### Features

- Minimum of 900 V breakdown
- Resistor programmable current source
- 40 W continuous dissipation
- International standard packages JEDEC TO-220 and TO-252
- On/Off switchable current source

### Applications

- Highly stable voltage sources
- Current surge limiters
- Transient voltage protection
- Instantaneously reacting resettable fuses
- Soft start-up circuits