

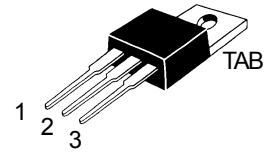
Switchable Current Regulators

IXCP10M90S
IXCY10M90S

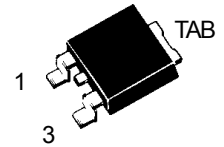
$V_{AK} = 900\text{ V}$
 $I_{A(P)} = 1 - 100\text{ mA}$
 $R_{DYN} = 100\text{ k}\Omega$

| 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} | | ± 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

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

| 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 μA |
| $\Delta V_{AK} / \Delta I_{A(P)}$ | Dynamic resistance; $V_D = 10\text{ V}$ $R_K = 300\ \Omega$; (Fig. 1) | 100 | | k Ω |
| R_{thJC} | Thermal Resistance junction-to-case | | | 3.1 K/W |
| R_{thJA} | Thermal Resistance junction-to-ambient | | | 80 K/W TO-220 100 K/W TO-252 |