IXYS

Switchable Current Regulators

IXCP10M90S
IXCY10M90S

V_{AK} = 900 V
$I_{A(P)}$ = 1 - 100 mA
R_{DYN} = 100 kΩ

Symbol	Test Condition	Maximum Ratings	
V_{AKR}	T_J = 25°C to 150°C	900	V
V_{AGR}	T_J = 25°C to 150°C	900	V
V_{GK}		±20	V
I_D	T_C = 25°C	-0.3	A
P_D	T_C = 25° C 4 0		W
T_J		-55 ... +150	°C
T_{stg}		-55 ... +150	°C
T_L	Temperature for Soldering (max. 10 s)	260	°C
M_D	Mounting torque with screw M3 (TO-220)	0.45/4	Nm/lb.in.
	with screw M3.5 (TO-220)	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°C unless otherwise specified) min.	typ.	max.	
V_{AKR}	R_{GK} = 300 Ω; (Fig. 1)	900			V
$I_{A(P)}$	V_{AD} = 10 V; RGK = 300 Ω; (Fig. 2)	7	9	15	mA
$V_{GK(off)}$	I_D = 100 µA; VD = 900 V (Fig. 4)	-5			V
$I_{D(P)}$	V_{AD} = 720 V; VGK = -10 V (Fig. 1)			25	µA
$\Delta V_{AK}/\Delta I_{A(P)}$	Dynamic resistance; V_{AD} = 10 V R_{GK} = 300 Ω; (Fig. 1)	100			kΩ
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

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 resetable fuses
- Soft start-up circuits