

## Feature

- 80W peak pulse power per line ( $t_p = 8/20\mu s$ )
- Replacement for MLV(0402)
- Bidirectional configurations
- Response time is typically  $< 1ns$
- Low clamping voltage
- RoHS compliant
- Transient protection for data lines to IEC61000-4-2(ESD)  $\pm 30KV$ (air),  $\pm 30KV$ (contact); IEC61000-4-4 (EFT) 40A (5/50ns)



DFN1006P2X

## Mechanical Characteristics

- Lead finish: 100% matte Sn(Tin)
- Mounting position: Any
- Qualified max reflow temperature:  $260^\circ C$
- Device meets MSL 2 requirements
- Pure tin plating:  $7 \sim 17 \mu m$
- Pin flatness:  $\leq 3mil$

## Applications

- Cellular phones
- Portable devices
- Digital cameras
- Power supplies

## Electrical characteristics per line@ $25^\circ C$ (unless otherwise specified)

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Units
Peak Reverse Working Voltage	$V_{RWM}$				8	V
Breakdown Voltage	$V_{BR}$	$I_t = 1mA$	9.0	11.0	13.0	V
Reverse Leakage Current	$I_R$	$V_{RWM} = 5V T = 25^\circ C$			1.0	$\mu A$
Maximum Reverse Peak Pulse	$I_{PP}$			5.0		A
Clamping Voltage	$V_C$	$I_{PP} = 1A$			13	V
Clamping Voltage	$V_C$	$I_{PP} = 3A$			15	V
Clamping Voltage	$V_C$	$I_{PP} = 5A$			17	V
Junction Capacitance	$C_j$	$V_R = 0V f = 1MHz$		13	15	pF

## Absolute maximum rating@ $25^\circ C$

Rating	Symbol	Value	Units
Peak Pulse Power ( $t_p = 8/20\mu s$ )	$P_{pp}$	80	W
Operating Temperature	$T_J$	-55 to +150	$^\circ C$
Storage Temperature	$T_{STG}$	-55 to +150	$^\circ C$

**Electrical Parameter**

Symbol	Parameter
$I_{PP}$	Maximum Reverse Peak Pulse Current
$V_C$	Clamping Voltage @ $I_{PP}$
$V_{RWM}$	Working Peak Reverse Voltage
$I_R$	Maximum Reverse Leakage Current @ $V_{RWM}$
$I_T$	Test Current
$V_{BR}$	Breakdown Voltage @ $I_T$

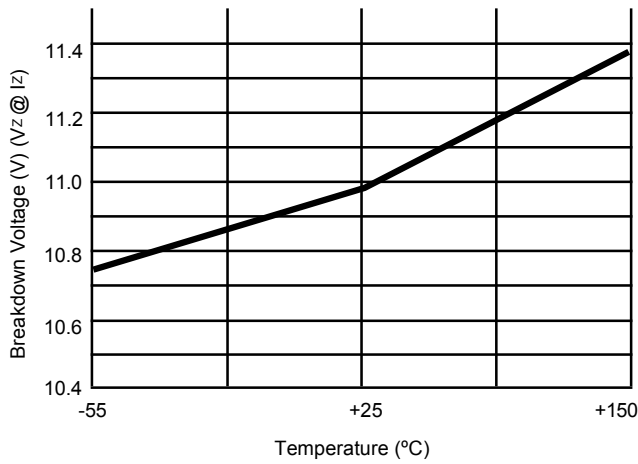
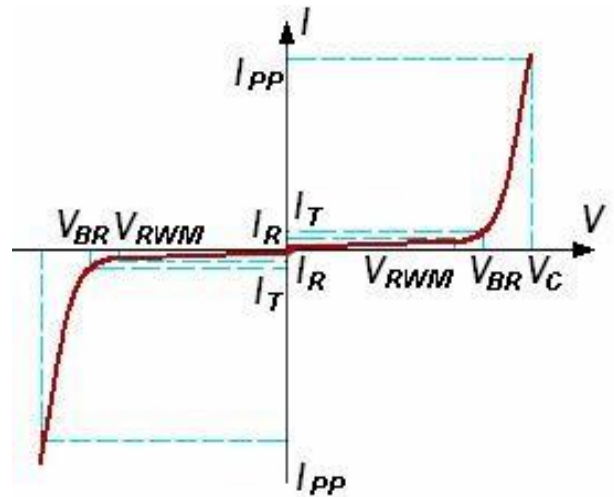


Fig .Typical Breakdown Voltage vs. Temperature

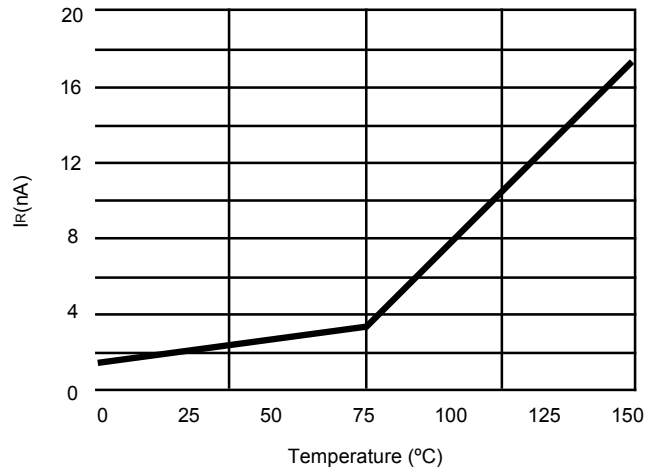


Fig .Typical Leakage Current vs. Temperature

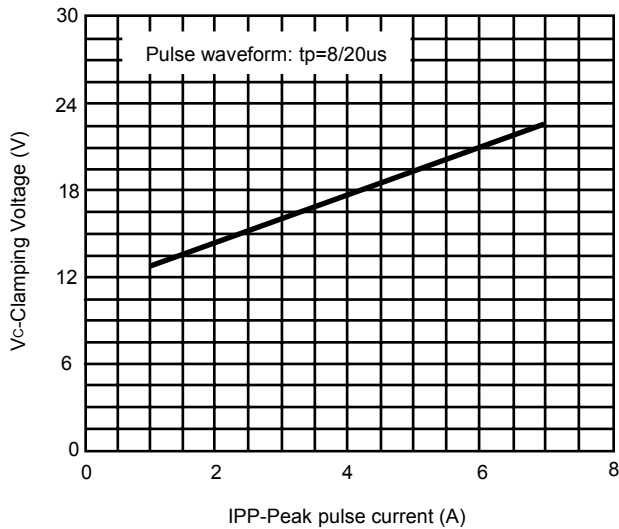
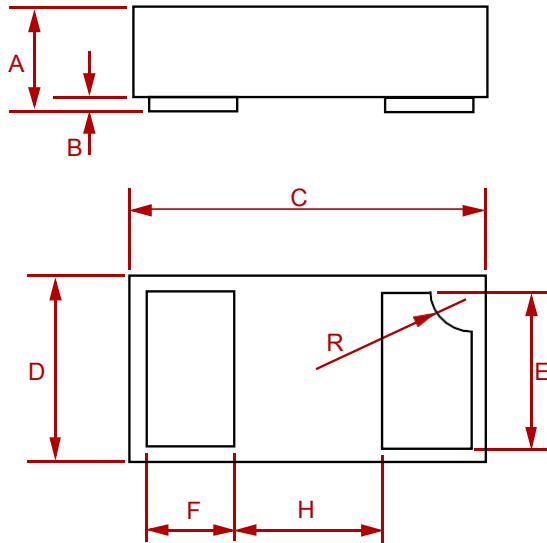


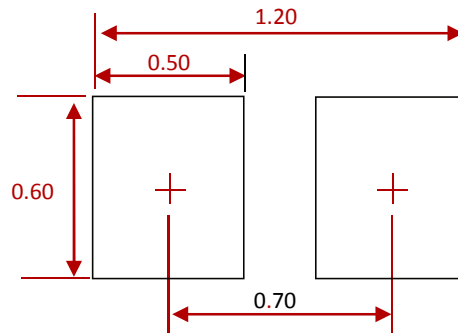
Fig Clamping voltage vs. Peak pulse current

## PACKAGE MECHANICAL DATA



Dim	Inches		Millimeters	
	MIN	MAX	MIN	MAX
A	0.0125	0.02	0.32	0.52
B	0.000	0.002	0.00	0.05
C	0.037	0.043	0.95	1.080
D	0.022	0.027	0.55	0.680
E	0.016	0.024	0.40	0.60
F	0.008	0.012	0.20	0.30
H	0.015Typ.		0.40Typ.	
R	0.001	0.005	0.05	0.15

## Suggested Pad Layout



### NOTES:

1. CONTROLLING DIMENSIONS ARE IN MILLIMETERS (ANGLES IN DEGREES).
2. THIS LAND PATTERN IS FOR REFERENCE PURPOSES ONLY. CONSULT YOUR MANUFACTURING GROUP TO ENSURE YOUR COMPANY'S MANUFACTURING GUIDELINES ARE MET.

## REEL SPECIFICATION

P/N	PKG	QTY
KRN4208-01F	DFN1006P2X	12000