



**XNV03**  
3KV, 100 mA  
Fast Recovery  
High Voltage Diode



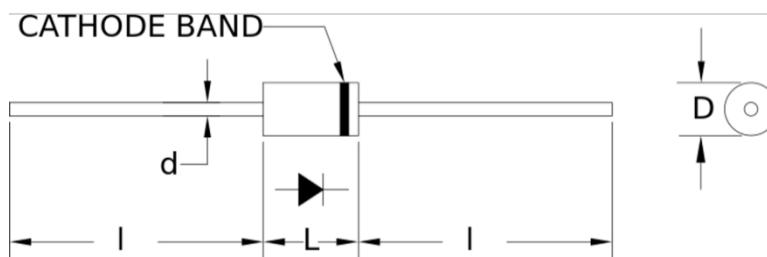
## Features

- High voltage, higher current diode in small form factor
- Molded plastic body, ANSI/UL94 V-0 rated material
- Uses new Dean Technology, XOE Technology
- RoHS compliant to Directive 2011/65/EC, Article 4(1), Annex II; Annex III, 7(a) and EU RoHS Directive (EU) 2015/863 of March 2015, Amending Annex II.

Device Electrical Characteristics*	Conditions	Symbol	Value
Maximum Repetitive Peak Reverse Voltage	-	$V_{RRM}$	3,000 Volts
Average Forward Current maximum	$T_{AIR} = 55^\circ C$	$I_{FAVM}$	100 mA
Average Forward Current maximum	$T_{OIL} = 55^\circ C$	$I_{FAVM(oil)}$	200 mA
Maximum Forward Voltage Drop	$I_F = I_{FAVM(oil)}$ , $t_{PW} = 100\mu sec$	$V_F$	7.1 Volts
Typical Thermal Resistance (junction to ambient)	In air	$R\Theta_{JA}$	150 °C/W
Maximum Surge Current rating	8.3msec, half sine	$I_{FSM}$	5 Amps
Maximum Reverse Current	at rated $V_{RRM}$	$I_R$	0.02 $\mu A$
Maximum Reverse Recovery Time	$IF=0.5IR$ ; $IR=-I_{FAVM(oil)}$ ; $IRR=-0.25IR$	$TRR$	70 $\eta s$
Maximum Reverse Energy Withstand	-	$E_{RSW}$	40 mJ
Typical Junction Capacitance	$f = 1Mhz$ , $V_r = 4VDC$	$C_J$	2.3 pF
Maximum Junction Temperature	-	$T_J$	125°C
Storage Temperature Range	-	$T_{STG}$	-55°C to 175°C

(\*Note: 25°C ambient temperature unless stated otherwise.)

Mechanical Data	Min.		Max.	
	in.	mm	in.	mm
Body length	L	-	-	0.12
Body diameter	D	-	-	0.08
Lead length	l	1.0	25.4	-
Lead diameter	d	-	-	0.020



Forward Current vs. Typical Forward Voltage Drop,  $T_A=25^\circ\text{C}$   
XNV03

