



## Features

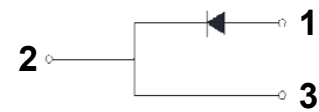
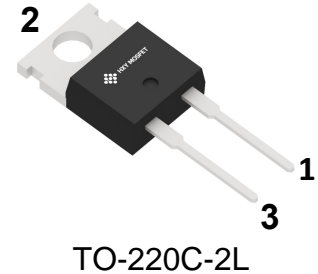
- High frequency operation
- High surge forward current capability
- High purity, high temperature epoxy encapsulation for enhanced mechanical strength and moisture resistance
- Guard ring for enhanced ruggedness and long term reliability
- Solder dip 275 °C max. 7 s, per JESD 22-B106

## Typical Applications

Typical applications are in switching power supplies, converters, freewheeling diodes, and reverse battery protection.

## Mechanical Data

- **Package:** TO-220C-2L  
Molding compound meets UL 94 V-0 flammability rating, RoHS-compliant
- **Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102
- **Polarity:** As marked



## Maximum Ratings (Ta=25°C unless otherwise specified)

Parameter	Symbol	Limit	Unit
Repetitive Peak Reverse Voltage	$V_{RRM}$	600	V
Average Rectified Output Current @60Hz half sine-wave, R-load, Tc	$I_o$	8	A
Surge(Non-repetitive)Forward Current @60Hz half sine-wave, 1 cycle, Ta=25°C	$I_{FSM}$	100	A
Current Squared Time @ 1ms≤t≤8.3ms Tj=25°C	$I^2t$	41	A <sup>2</sup> s
Storage Temperature	$T_{stg}$	-55 ~ +150	°C
Junction Temperature	$T_j$	-55 ~ +150	°C

## Electrical Characteristics(Ta=25°C unless otherwise specified)

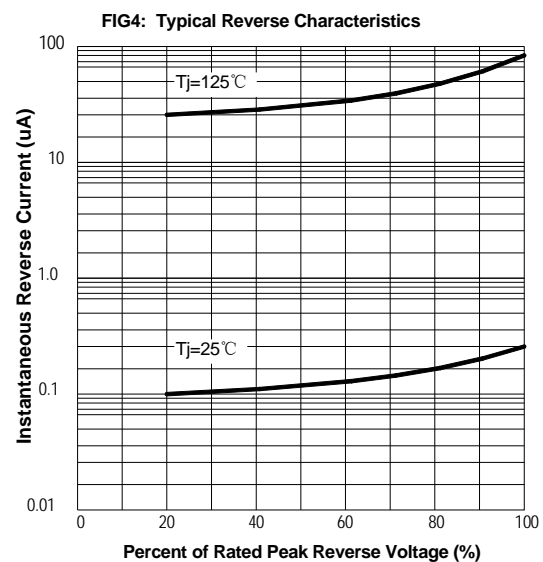
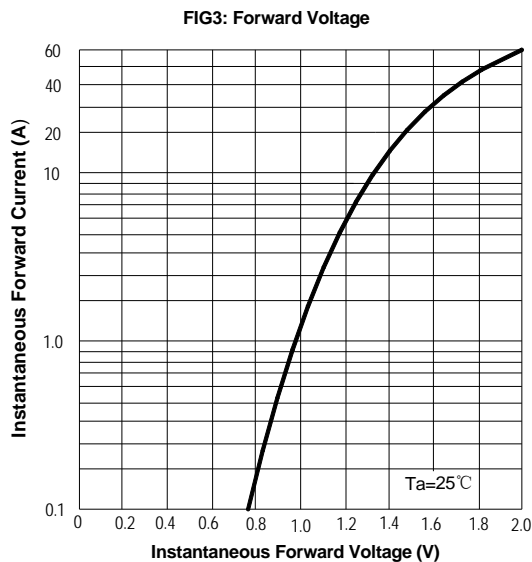
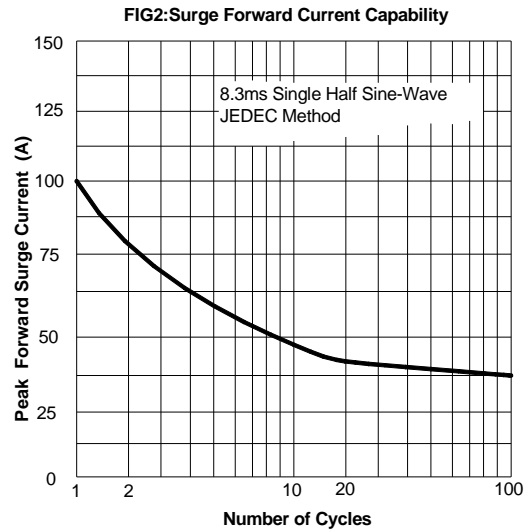
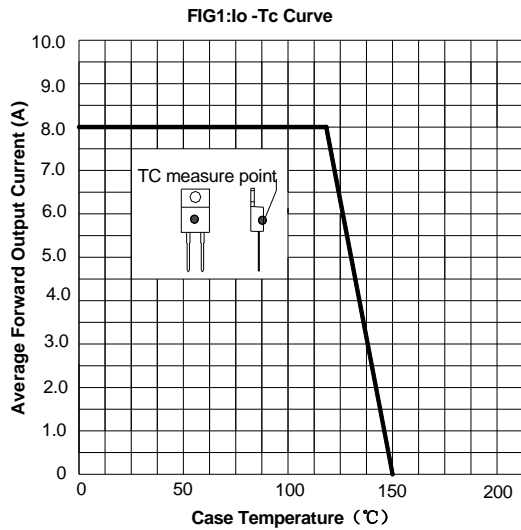
Parameter	Symbol	Test Conditions	Limit	Unit
Maximum instantaneous forward voltage drop per diode	$V_{FM}$	$I_{FM}=8.0A$	1.5	V
Maximum DC reverse current at rated DC blocking voltage per diode	$I_{RRM1}$	$V_{RM}=V_{RRM}$ Ta=25°C	10	uA
	$I_{RRM2}$	$V_{RM}=V_{RRM}$ Ta=125°C	500	
Reverse Recovery Time	$T_{rr}$	$I_F=0.5A$ $I_{RM}=1A$ $I_{RR}=0.25A$	50	ns

## Thermal Characteristics (Ta=25°C unless otherwise specified)

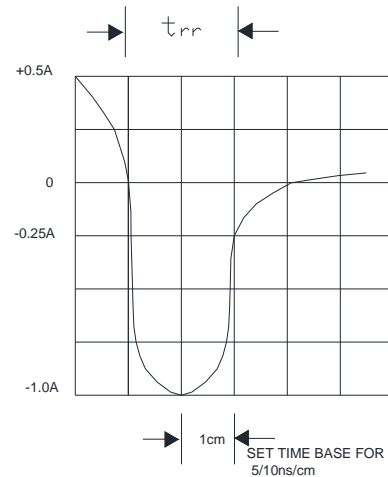
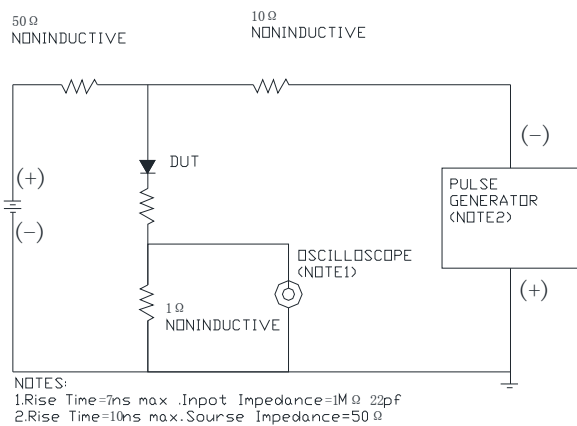
Parameter		Symbol	Limit	Unit
Thermal Resistance	Between junction and case	$R_{\theta J-C}$	2.0	°C/W



## Characteristics (Typical)

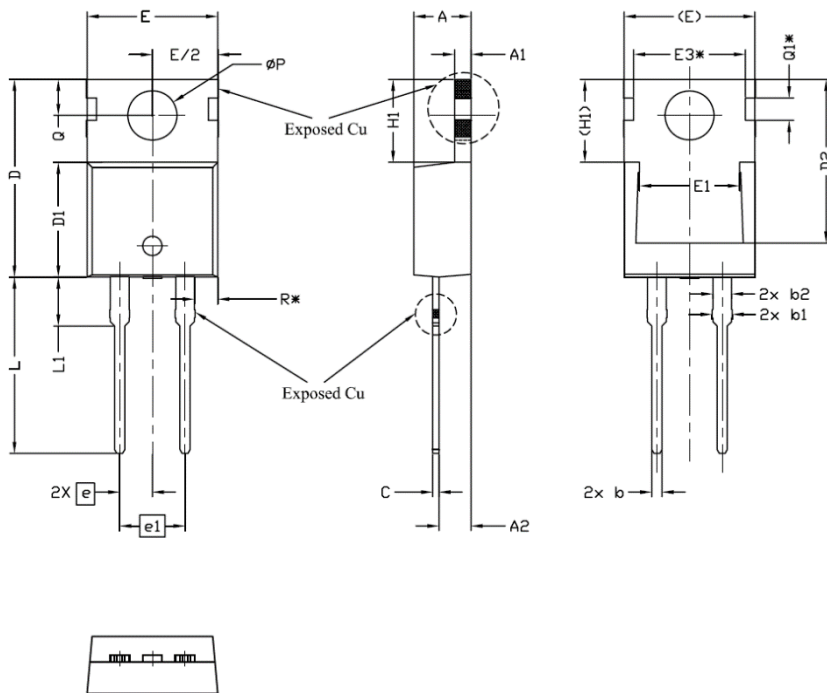


**FIG.5 Diagram of circuit and Testing wave form of reverse recovery time**



## Package Information

### TO-220C-2L



SYMBOL	DIMENSIONS			NOTES
	MIN.	NOM.	MAX.	
A	4,24	4,44	4,64	
A1	1.15	1.27	1.40	
A2	2,30	2,48	2,70	
b	0.70	0.80	0.90	
b1	1.20	1.55	1.75	
b2	1,20	1,45	1,70	
c	0.40	0.50	0.60	
D	14,70	15,37	16,00	4
D1	8,82	8,92	9,02	
D2	12,43	12,73	12,83	5
E	9,96	10,16	10,36	4,5
E1	6,86	7,77	8,89	5
E3*	8.70REF.			
e	2.54BSC			
e1	5.08BSC			
H1	6,30	6,45	6,60	5,6
L	13,47	13,72	13,97	
L1	3.60	3.80	4.00	
ØP	3,75	3,84	3,93	
Q	2,60	2,80	3,00	
Q1*	1.73REF.			
R*	1.82REF.			



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