



Features

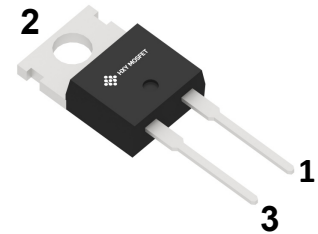
- High frequency operation
- High surge forward current capability
- High purity, high temperature epoxy encapsulation for enhanced mechanical strength and moisture resistance
- Guard ring for enhanced ruggedness and long term reliability
- Solder dip 275 °C max. 7 s, per JESD 22-B106

Typical Applications

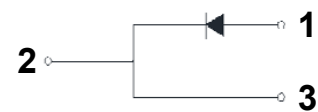
Typical applications are in switching power supplies, converters, freewheeling diodes, and reverse battery protection.

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



TO-220C-2L



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 ² 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 _{BJ-C}	2.0	°C/W



Characteristics (Typical)

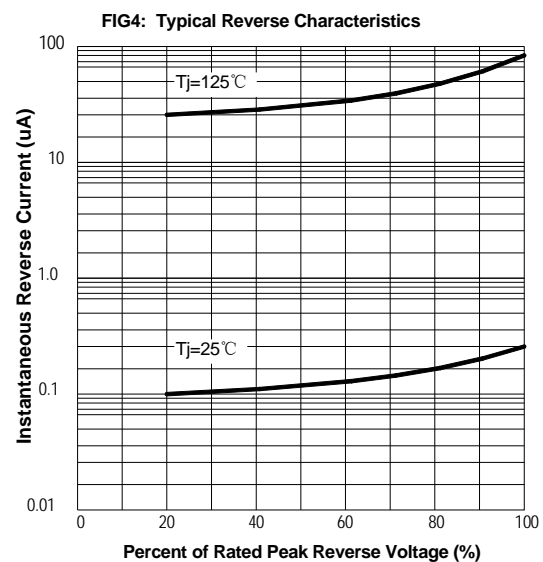
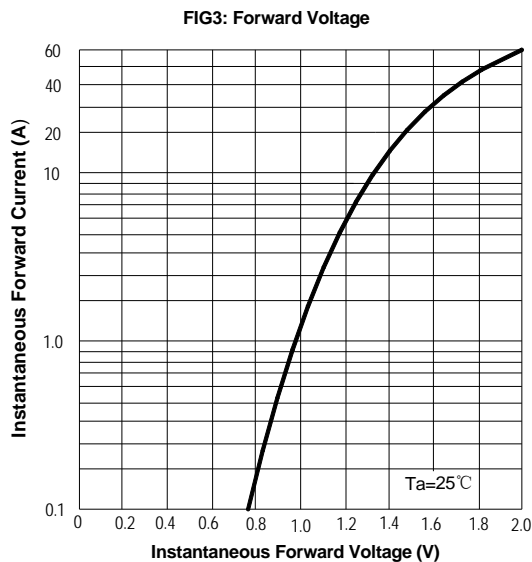
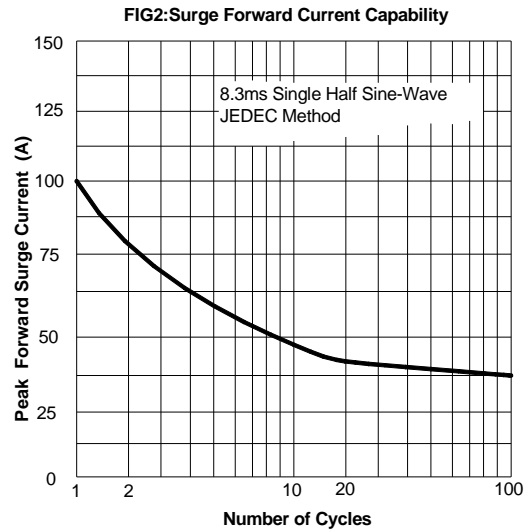
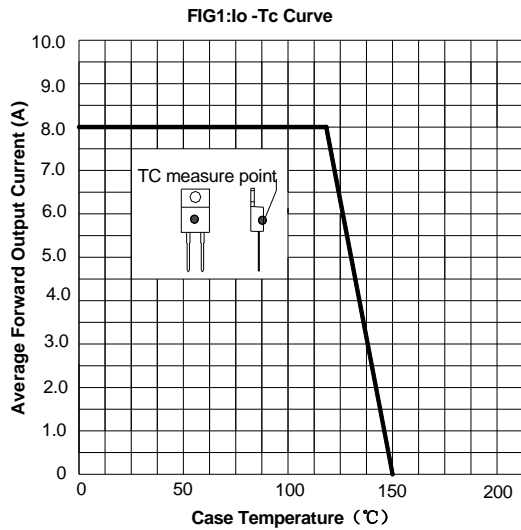
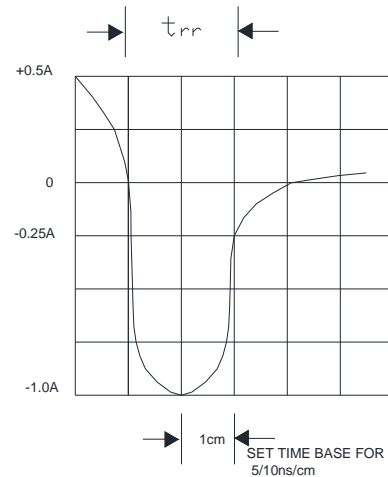
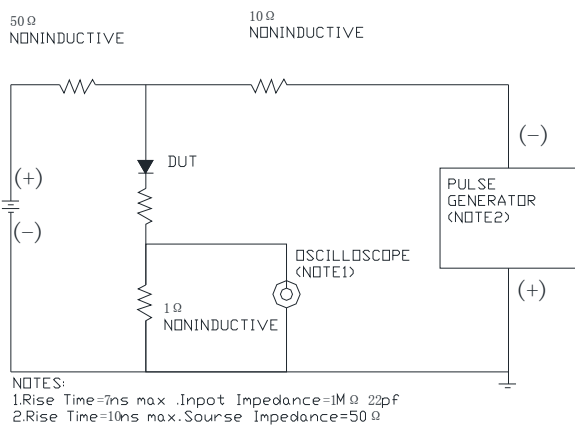
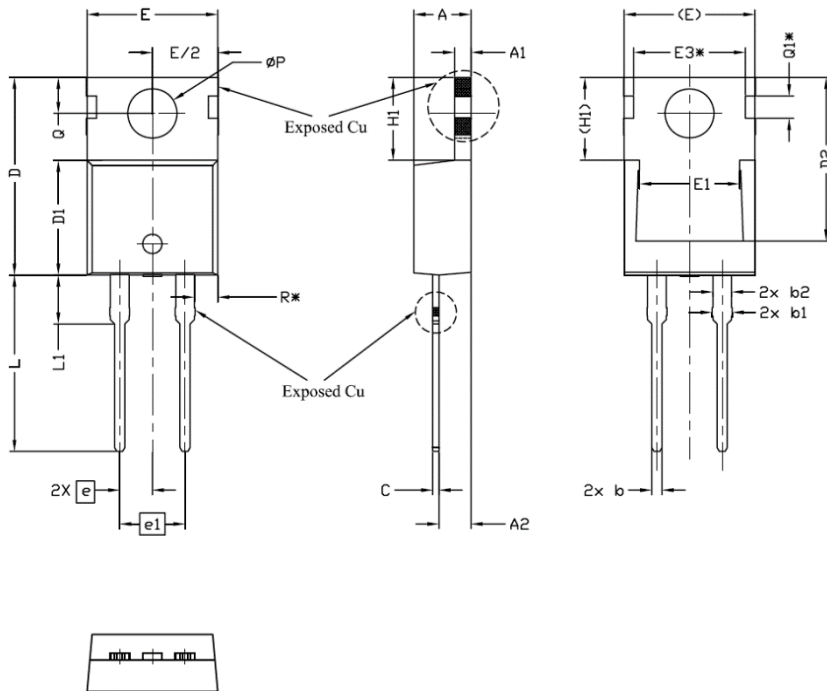


FIG.5 Diagram of circuit and Testing wave form of reverse recovery time



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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