



Features

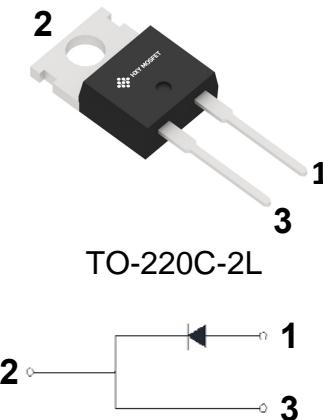
- High frequency operation
- High surge forward current capability
- High purity, high temperature epoxy encapsulation for enhanced mechanical strength and moisture resistance
- Guard ring for enhanced ruggedness and long term reliability
- Solder dip 275 °C max. 7 s, per JESD 22-B106

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, T _c	I _o	8	A
Surge(Non-repetitive)Forward Current @60Hz half sine-wave, 1 cycle, T _a =25°C	I _{FSM}	100	A
Current Squared Time @1ms≤t≤8.3ms T _j =25°C	I ² t	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} T _a =25°C	10	uA
	I _{RRM2}	V _{RM} =V _{RRM} T _a =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 _{θJ-C}	°C/W



Characteristics (Typical)

FIG1:Io -Tc Curve

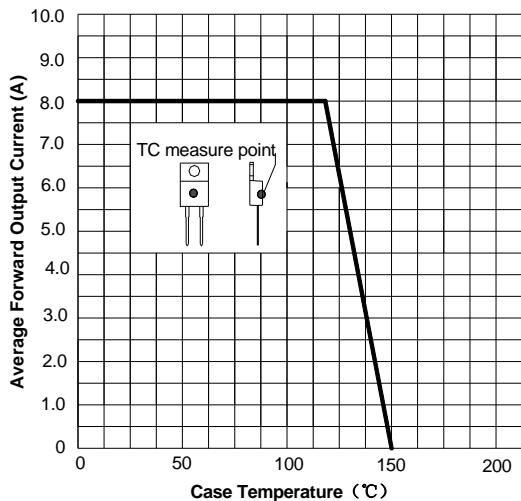


FIG2: Surge Forward Current Capability

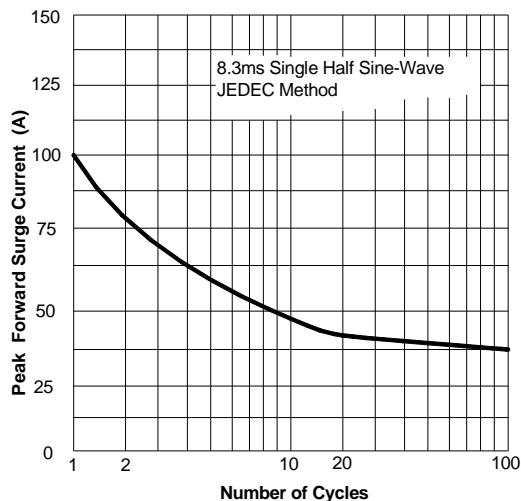


FIG3: Forward Voltage

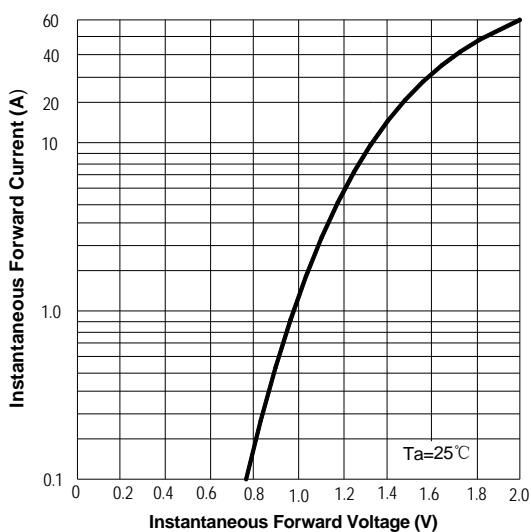


FIG4: Typical Reverse Characteristics

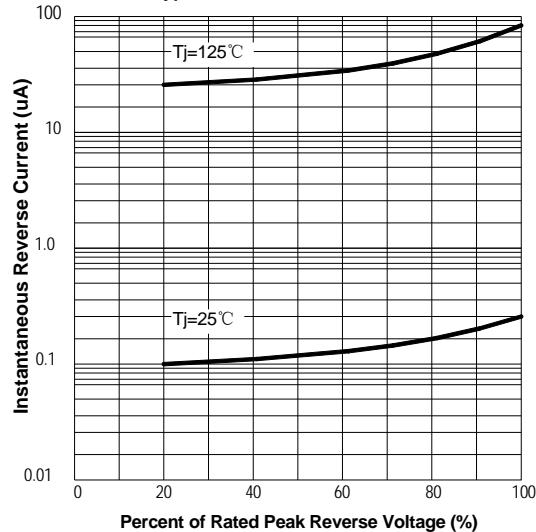
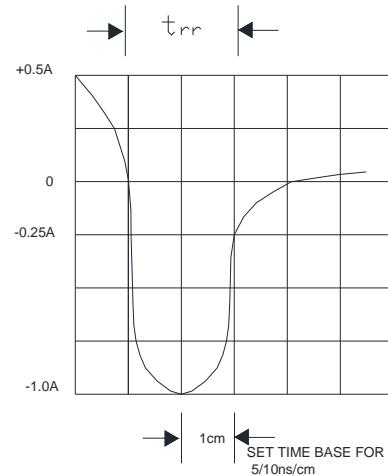
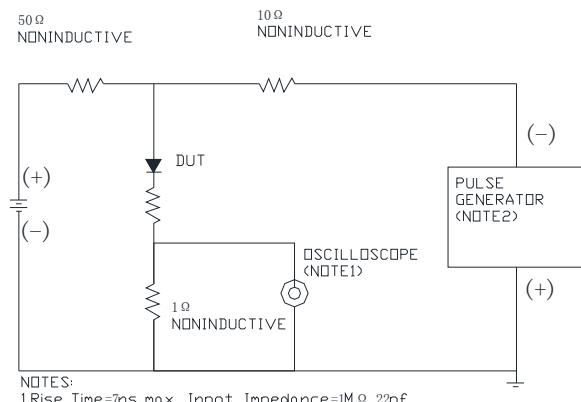
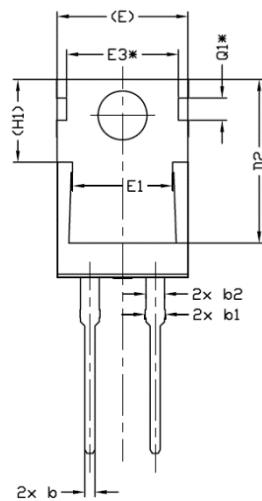
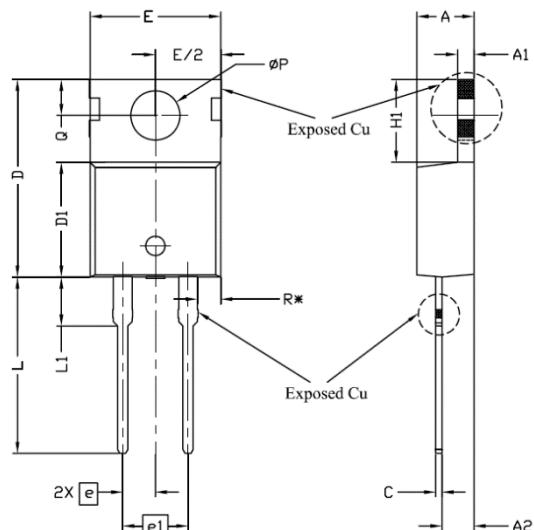


FIG.5 Diagram of circuit and Testing wave form of reverse recovery time





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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