



## Features

- Glass passivated chip
- Super fast switching time for high efficiency
- Low reverse leakage current
- High surge capacity

## Typical Applications

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

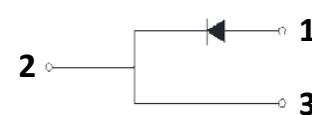
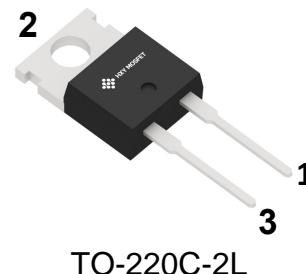
## Mechanical Data

### • 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 <sub>RRM</sub>	600	V
Average Rectified Output Current @60Hz half sine-wave, R-load, T <sub>c</sub> (FIG.1)	I <sub>o</sub>	15	A
Surge(Non-repetitive)Forward Current @60Hz half sine-wave, 1 cycle, Ta=25°C	I <sub>FSM</sub>	150	A
Storage Temperature	T <sub>stg</sub>	-55 ~ +150	°C
Junction Temperature	T <sub>j</sub>	-55 ~ +150	°C

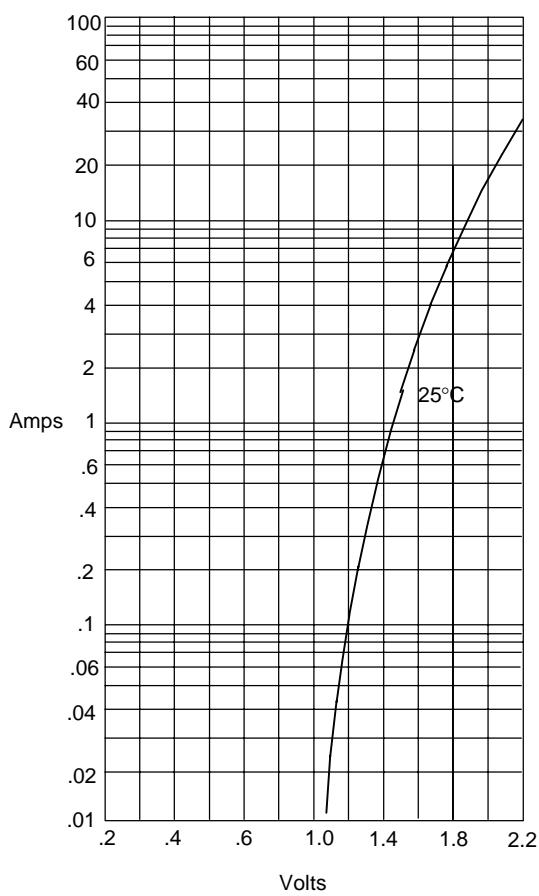
## Electrical Characteristics(Ta=25°C Unless otherwise specified)

Parameter	Symbol	Test Conditions	Limit	Unit
Maximum instantaneous forward voltage drop per diode	V <sub>FM</sub>	I <sub>FM</sub> =15A	1.50	V
Maximum DC reverse current at rated DC blocking voltage per diode	I <sub>RRM1</sub>	V <sub>RM</sub> =V <sub>RRM</sub> T <sub>a</sub> =25°C	10	uA
	I <sub>RRM2</sub>	V <sub>RM</sub> =V <sub>RRM</sub> T <sub>a</sub> =125°C	1000	
Reverse Recovery Time	T <sub>rr</sub>	I <sub>F</sub> =0.5A I <sub>RM</sub> =1A I <sub>RR</sub> =0.25A	60	ns



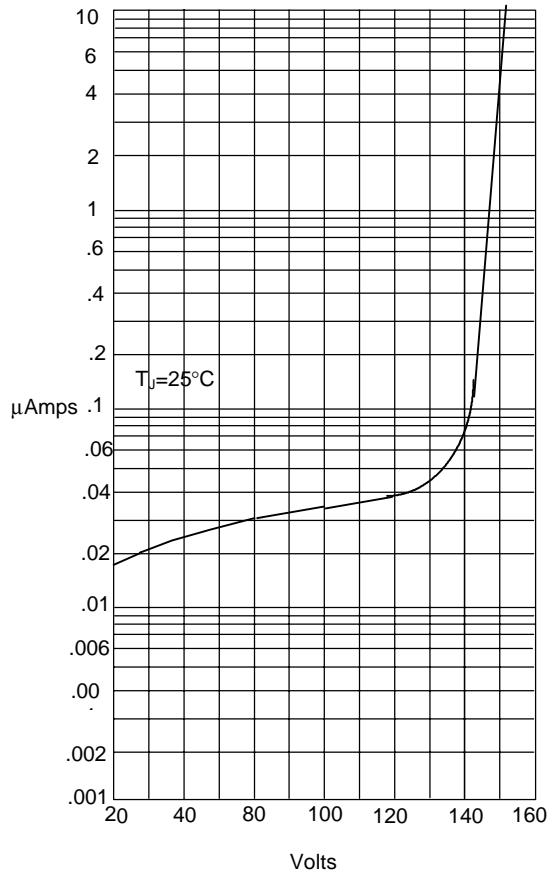
## Typical Characteristics

Figure 1  
Typical Forward Characteristics



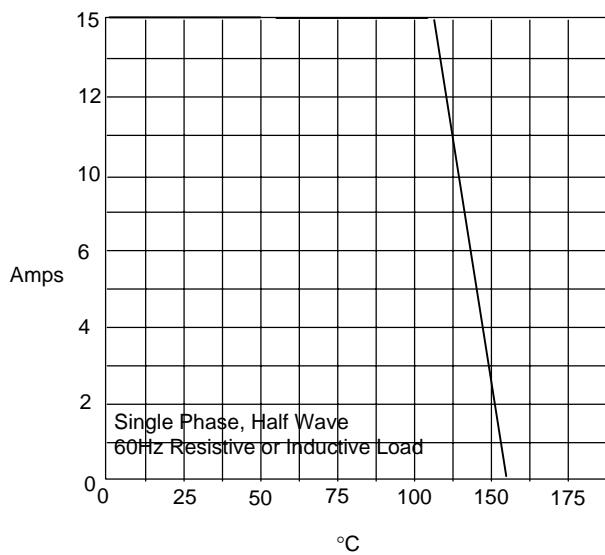
Instantaneous Forward Current - Amperes versus  
Instantaneous Forward Voltage - Volts

Figure 2  
Typical Reverse Characteristics



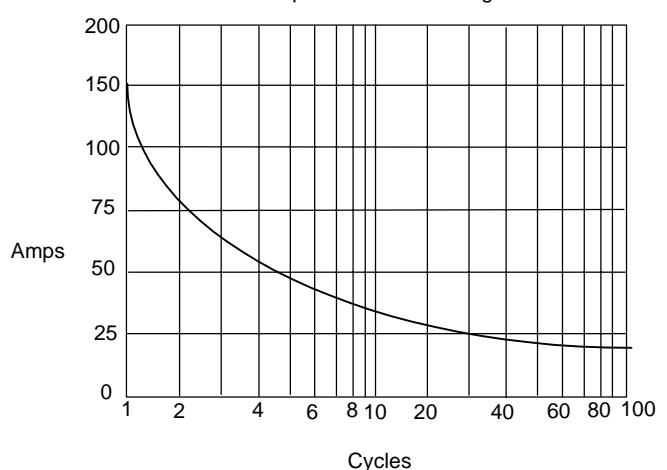
Instantaneous Reverse Leakage Current - MicroAmpers versus  
Percent Of Rated Peak Reverse Voltage - Volts

Figure 3  
Forward Derating Curve



Average Forward Rectified Current - Amperes versus  
Case Temperature -  $^{\circ}\text{C}$

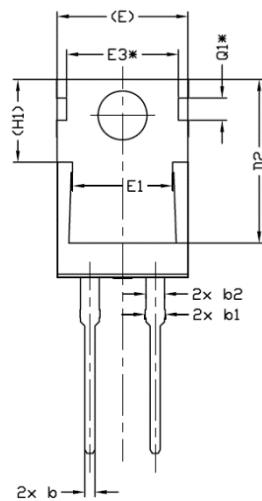
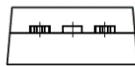
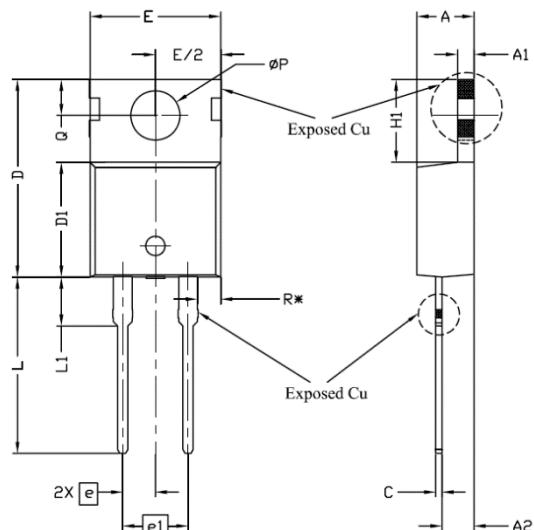
Figure 4  
Maximum Non-Repetitive Forward Surge Current



Peak Forward Surge Current - Amperes versus  
Number Of Cycles At 60Hz - Cycles



**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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