

TO-247- 2L Plastic-Encapsulate Diodes

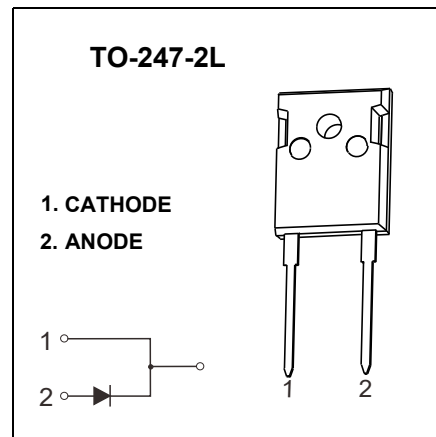
SUPER FAST RECOVER RECTIFIER

MAIN CHARACTERISTICS

I_O	70 A
V_{RRM}	200 V
T_j	150 °C
$V_{F(typ)}$	0.82 V (@ $T_j=125^{\circ}C$)

FEATURES

- Ultrafast 50ns Recovery Times
- High Voltage Capability to 200V
- Low Reverse Leakage Current
- Typical applications are in switching power supplies, converters freewheeling diodes, and reverse battery protection.



Mechical Data

- Case: TO-247-2L
- Molding compound: UL flammability classification rating 94V-0
- Terminals: Solder plated, solderable per MIL- STD-202, Method 208

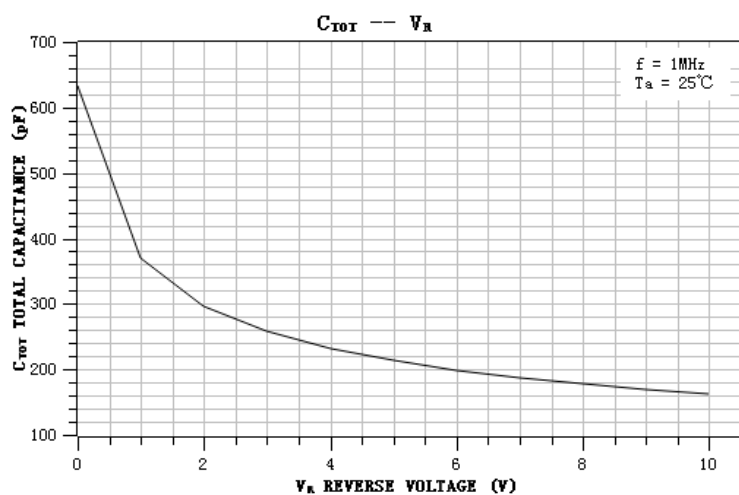
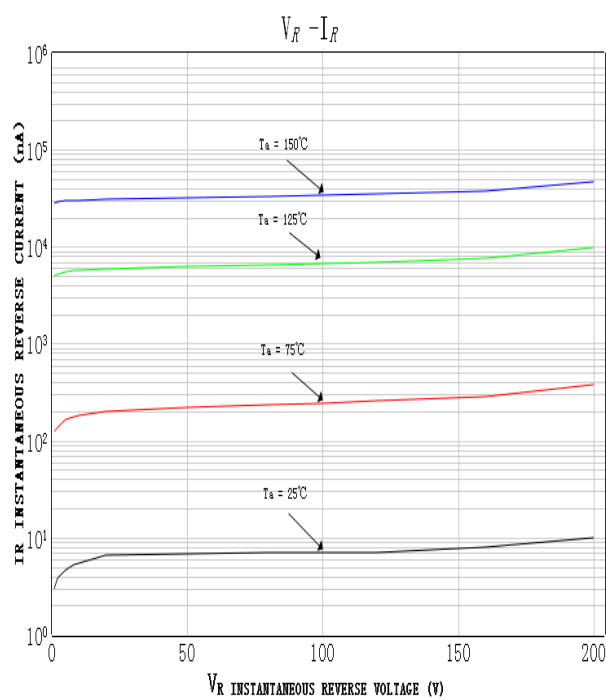
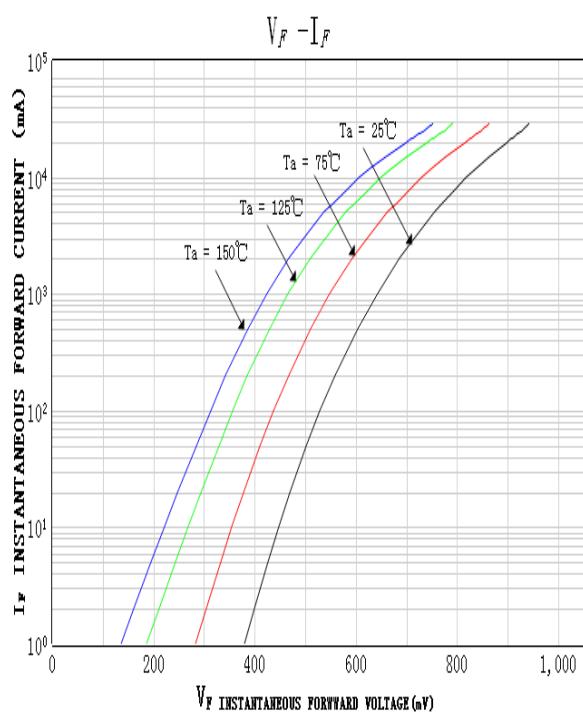
MAXIMUM RATINGS ($T_a=25^{\circ}C$ unless otherwise noted)

Symbol	Parameter	MURW7020	Unit
V_{RRM}	Peak repetitive reverse voltage	200	V
V_{RWM}	Working peak reverse voltage		
V_R	DC blocking voltage		
$V_{R(RMS)}$	RMS reverse voltage	140	V
I_O	Average rectified output current@ Total device	70	A
I_{FSM}	Non-Repetitive peak forward surge current 8.3ms half sine wave	650	A
$R_{\theta JC}$	Thermal resistance from junction to case	1.5	°C/W
T_j	Operating Junction Temperature Range	-40 ~ +150	°C
T_{stg}	Storage Temperature Range	-40 ~ +150	°C

ELECTRICAL CHARACTERISTICS ($T_a=25^{\circ}C$ unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Reverse voltage	$V_{(BR)}$	$I_R=100\mu A$	200			V
Reverse current	I_R	$=200V$	$T_j = 25^{\circ}C$	0.1	100	μA
			$T_j = 125^{\circ}C$	12		μA
Forward voltage	V_F	$I_F=35A$	$T_j = 25^{\circ}C$	0.99	1.1	V
			$T_j = 125^{\circ}C$	0.82		V
Typical total capacitance	C_{tot}	$V_R=0V, f=1MHz$		634		pF
Reverse recovery time	t_{rr}	$I_F= 0.5A, I_R=1A, I_{rr}=0.25A$		31	50	ns

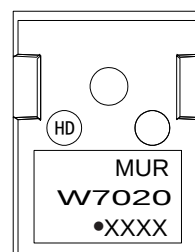
Typical Characteristics



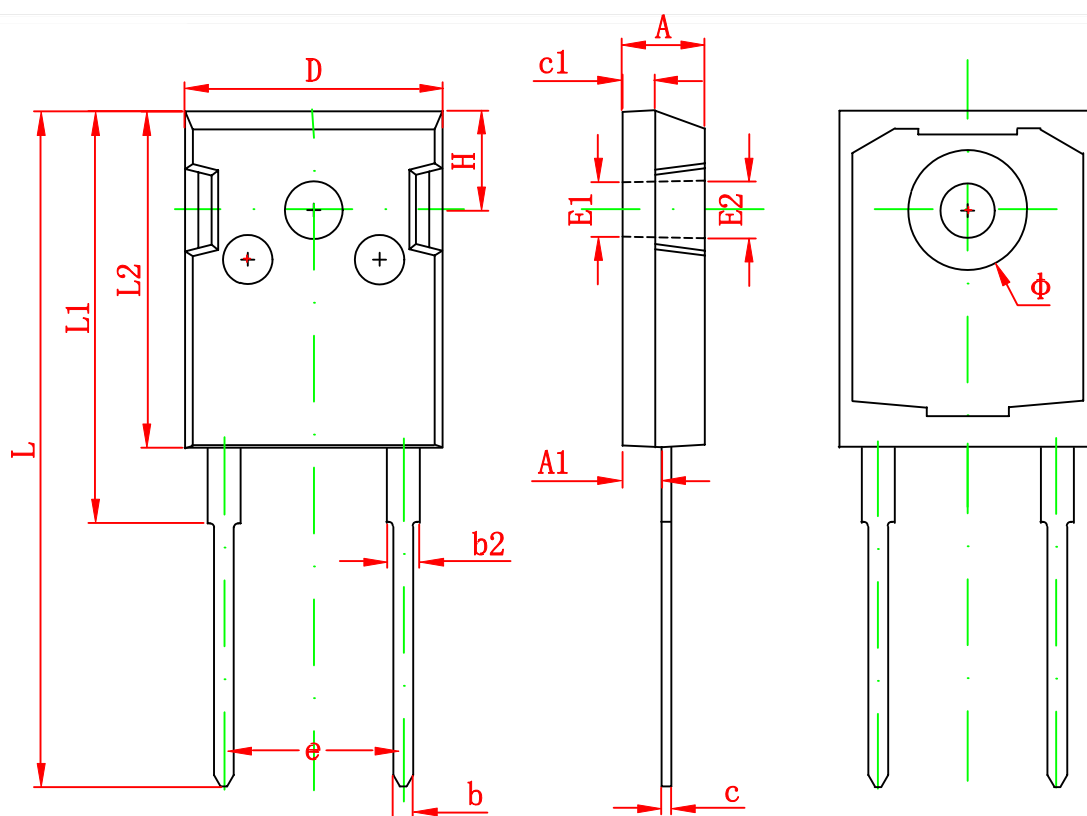
Ordering Information

Part Number	Package	Shipping Quantity
MURW7020	TO-247-2L	30pcs/Tube

Marking Diagram



XXXX = Code



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	4.850	5.150	0.191	0.200
A1	2.200	2.600	0.087	0.102
b	1.000	1.400	0.039	0.055
b2	1.800	2.200	0.071	0.087
c	0.500	0.700	0.020	0.028
c1	1.900	2.100	0.075	0.083
D	15.450	15.750	0.608	0.620
E1	3.500 REF		0.138 REF	
E2	3.600 REF		0.142 REF	
L	40.900	41.300	1.610	1.626
L1	24.800	25.100	0.976	0.988
L2	20.300	20.600	0.799	0.811
Φ	7.100	7.300	0.280	0.287
e	10.86 TYP		0.427 TYP	
H	5.980 REF		0.235 REF	