

Ultra-Fast Recovery EPI Rectifier Diodes
Reverse Voltage - 1200 V
Forward Current - 60 A
FEATURES

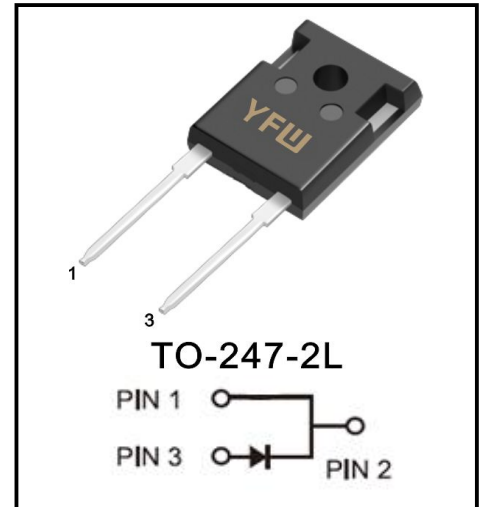
- ◆ Super fast switching for high efficiency.
- ◆ Low reverse leakage.
- ◆ High forward surge current capability.
- ◆ RoHs Product.

Description

MUR60120W Device optimized for ultra-low forward voltage drop to maximize efficiency in Power Supply applications.

Application

Mainly used in switching power supply, PWM pulse width modulator, inverter as a freewheeling and other electronic circuits, high-frequency rectifier diode, diode or damping diode use


Primary Characteristic

I_{FAV}	60A
V_{RRM}	1200V
I_{FSM}	500*1A
V_F	2V
T_J Max	175°C

Maximum Ratings (Per Leg) at Ta=25°C unless otherwise specified

Parameter	Symbols	Value	Units
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	1200	V
Maximum RMS voltage	V_{RMS}	840	V
Maximum DC Blocking Voltage	V_{DC}	1200	V
*Average Rectified Forward Current (Rated VR=20Khz Square Wave) - 50% duty cycle	I_{FAV}	60	A
Peak Forward Surge Current, 8.3ms Single Half Sine-wave	I_{FSM}	500*1	A
Operating Temperature Range	T_J	175	°C
Storage Temperature Range	T_{STG}	-55 ~ +175	°C
Typical Thermal Resistance(per leg)	R_{θJC}	0.5	°C/W

Electrical Characteristics (Per Leg) unless otherwise specified

Characteristics		Symbols	Value		Units
Forward Voltage Drop		V_F	Typ	Max	V
at IF=60A	TA=25°C		2	2.4	
	TA=125°C		-	2.2	
Maximum Reverse Current at VR=1200V	TA=25°C	I_R	-	0.01	mA
	TA=125°C		-	0.35	mA
Maximum Reverse Recovery Time at IF=0.5A, IR=1A, IRR=0.25A		T_{RR}	-	≤100	nS

RATINGS AND CHARACTERISTIC CURVES

Fig.1 Forward Current Derating Curve

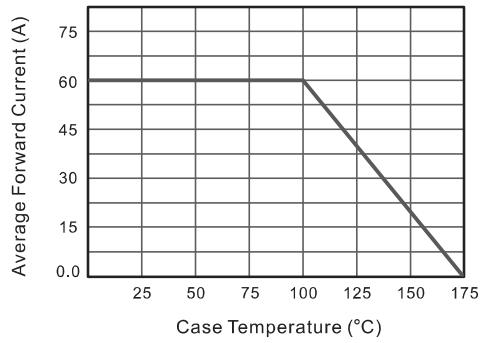


Fig.2 Typical Instantaneous Reverse Characteristics

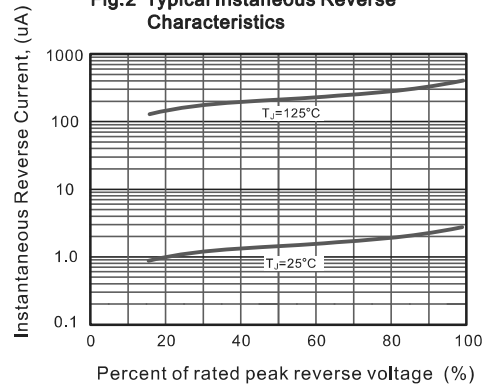


Fig.3 Typical Forward Characteristic

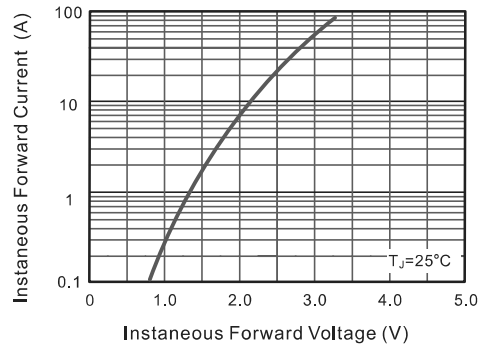
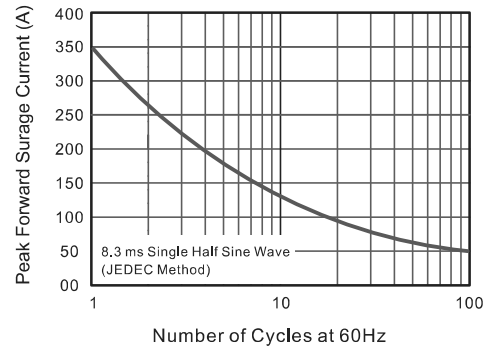
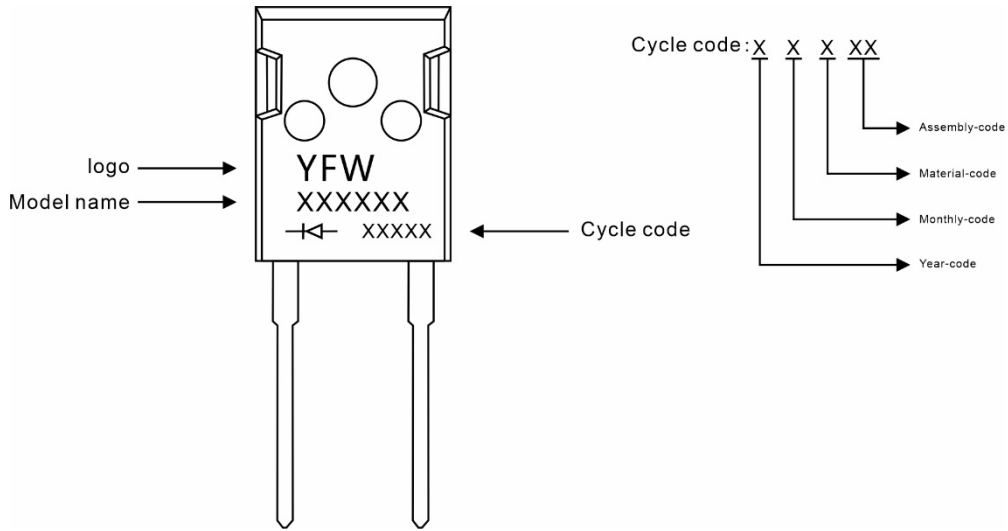


Fig.4 Maximum Non-Repetitive Peak Forward Surge Current



Marking Diagram



Ordering information

Model name	Package	Unit Weight	Base Quantity	Packing Quantity
MUR60120W	TO-247-2L	0.209oz(5.93g)	30pcs/tube	600PCS/Box 3000PCS/Carton

Package Dimensions

TO-247-2L

Symbol	Dimensions in mm		Dimensions in Inch	
	Min.	Max.	Min.	Max.
A	4.90	5.10	0.193	0.201
A1	1.90	2.10	0.075	0.083
A2	2.29	2.54	0.090	0.100
b	1.00	1.40	0.039	0.055
b1	2.00	2.20	0.079	0.087
c	0.50	0.70	0.020	0.028
D	15.75	16.05	0.620	0.632
E	20.20	20.80	0.795	0.819
e1	10.90 (BSC)		0.429 (BSC)	
F	6.05	6.25	0.238	0.246
F1	5.80	6.00	0.228	0.236
L	20.10	20.40	0.791	0.803
L1	4.05	4.35	0.159	0.171
Φ	3.50	3.70	0.138	0.146

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