

Ultra-Fast Recovery EPI Rectifier Diodes

Reverse Voltage - 1200 V

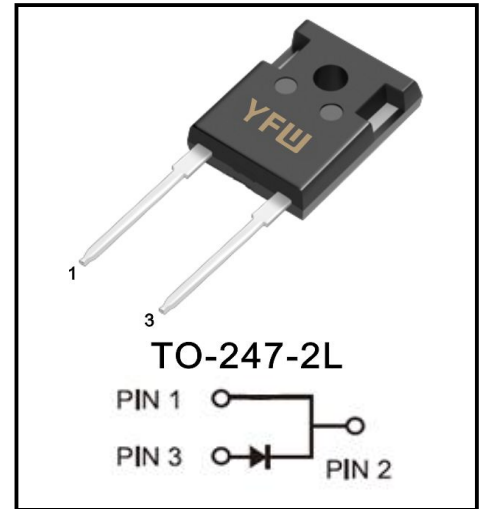
Forward Current - 30A

FEATURES

- ◆ 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. 7s, per JESD 22-B106

MECHANICAL DATA

- ◆ Case: TO-247-2L
- ◆ pprox. Weight: 6.0g (0.21oz)
- ◆ Lead free finish, RoHS compliant
- ◆ Case Material: “Green” molding compound, UL flammability classification 94V-0, “Halogen-free”.



Maximum Ratings And Electrical Characteristics

Ratings At 25 °C Ambient Temperature Unless Otherwise Specified

Parameter	Symble	MUR30120W	Units
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	1200	V
Average Rectified Output Current @60Hz half sinewave, R-load, Tc(FIG.1)	I_O	30	A
Peak Forward Surge Current,8.3ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I_{FSM}	300	A
Max Instantaneous Forward Voltage at 30 A	V_F	3.5	V
Maximum DC Reverse Current $T_a = 25^{\circ}C$ at Rated DC Reverse Voltage $T_a=125^{\circ}C$	I_R	10 500	μA
Typical Thermal Resistance	$R_{\theta JC}$	0.4	$^{\circ}C/W$
Maximum Reverse Recovery Time (1)	t_{rr}	60	ns
Operating Junction Temperature Range	T_j	-55 ~ +175	$^{\circ}C$
Storage Temperature Range	T_{stg}	-55 ~ +175	$^{\circ}C$

(1) $I_F=0.5A, I_R=1A, I_{RR}=0.25A$

Fig.1 Forward Current Derating Curve

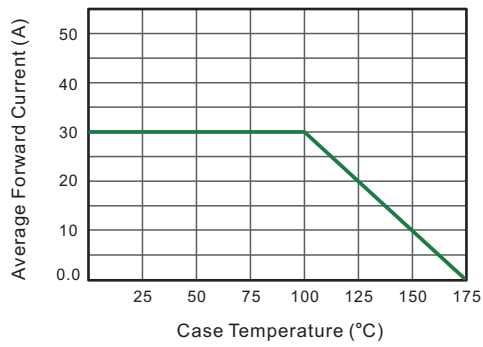


Fig.2 Typical Instantaneous Reverse Characteristics

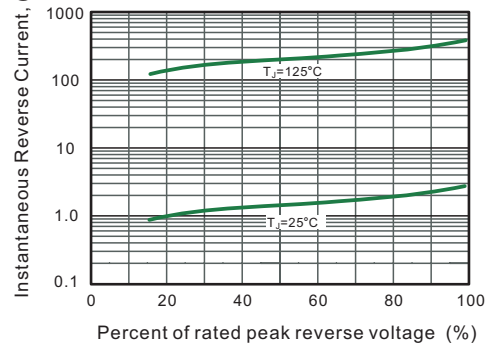


Fig.3 Typical Forward Characteristic

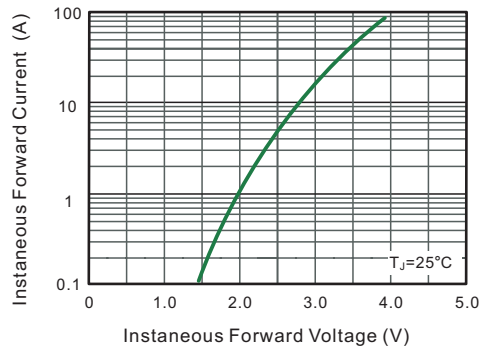
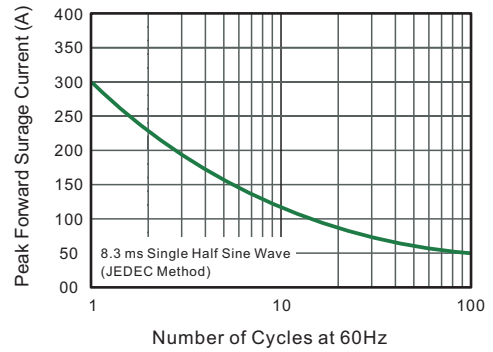
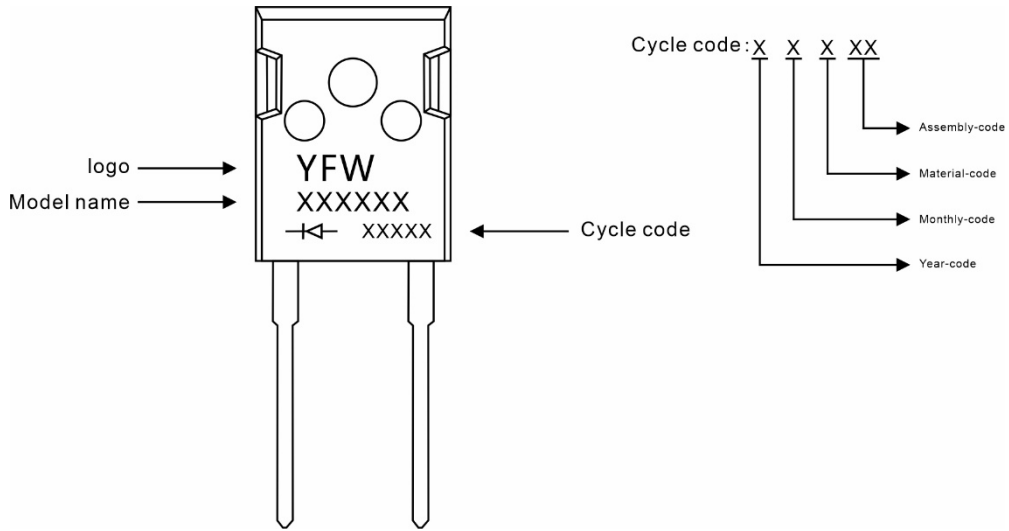


Fig.4 Maximum Non-Repetitive Peak Forward Surge Current



Marking Diagram



Ordering information

Model name	Package	Unit Weight	Base Quantity	Packing Quantity
MUR30120W	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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