

**FRED Super Fast Recovery Rectifier**

**Reverse Voltage - 600 V**

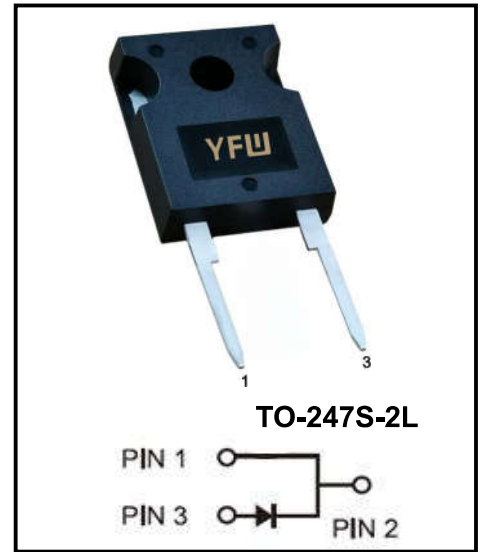
**Forward Current - 60A**

**FEATURES**

- ◆ The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- ◆ Construction utilizes void-free molded plastic technique
- ◆ Low reverse leakage
- ◆ High forward surge current capability
- ◆ High temperature soldering guaranteed  
260 °C/10 seconds at terminals

**MECHANICAL DATA**

- ◆ Case :TO-247S-2L
- ◆ Terminals : Solder plated, solderable per MIL-STD-750, Method 2026
- ◆ Polarity : Polarity symbol marking on body
- ◆ Mounting Position : Any



**Primary Characteristic**

<b>I<sub>(AV)</sub></b>	60A
<b>V<sub>R</sub>RRM</b>	600V
<b>I<sub>F</sub>FSM</b>	420A
<b>V<sub>F</sub></b>	1.9V
<b>T<sub>rr</sub></b>	55ns
<b>T<sub>J</sub>max</b>	175°C

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

Characteristics	Symbol	Value	Unit
Maximum Repetitive Peak Reverse Voltage	<b>V<sub>R</sub>RRM</b>	600	<b>V</b>
Working Peak Reverse Voltage	<b>V<sub>R</sub>RWM</b>	420	<b>V</b>
Maximum DC Blocking Voltage	<b>V<sub>DC</sub></b>	600	<b>V</b>
Maximum average forward rectified current at T <sub>L</sub> =100 °C	<b>I<sub>(AV)</sub></b>	60	<b>A</b>
Peak Forward Surge Current,8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	<b>I<sub>F</sub>FSM</b>	600	<b>A</b>
Operating Temperature Range	<b>T<sub>J</sub></b>	175	<b>°C</b>
Storage Temperature Range	<b>T<sub>STG</sub></b>	-55 to +175	<b>°C</b>
Typical Thermal Resistance (Note1)	<b>R<sub>θJC</sub></b>	1.5	<b>°C/W</b>

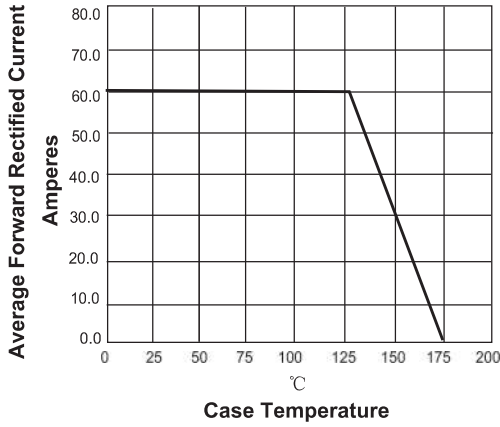
**Electrical Characteristics (Per Leg) unless otherwise specified**

Characteristics	Symbol	Typ.	Max.	Unit
Maximum instantaneous forward voltage per diode at 60A	<b>V<sub>F</sub></b>	1.9	2.5	<b>V</b>
Maximum DC reverse current at rated DC blocking voltage	<b>I<sub>R</sub></b>	T <sub>A</sub> =25°C	5	<b>μA</b>
		T <sub>A</sub> =125°C	200	<b>μA</b>
Maximum reverse recovery time	<b>T<sub>rr</sub></b>	55	75	<b>ns</b>

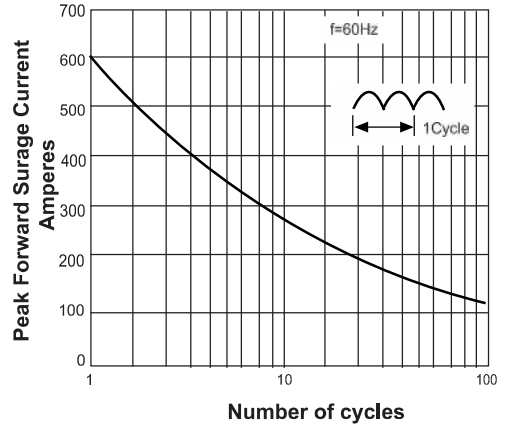
Note:1.Reverse recovery time test condition: IF=0.5A IR=1.0A I<sub>rr</sub>=0.25A

**RATINGS AND CHARACTERISTIC CURVES**

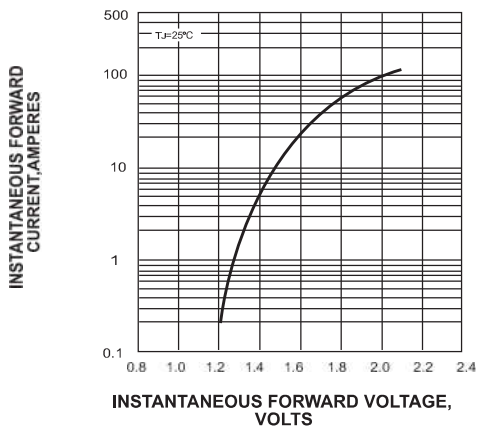
**FIG. 1- DERATING CURVE OUTPUT RECTIFIED CURRENT**



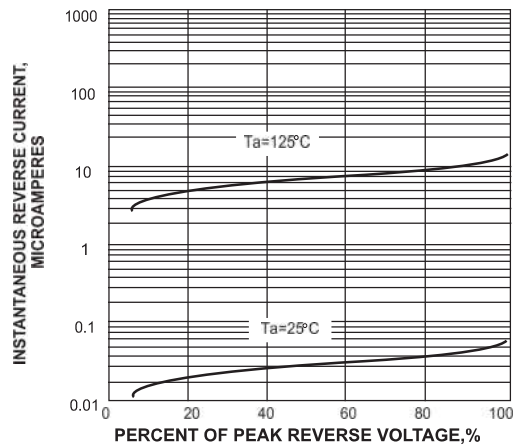
**FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER LEG**



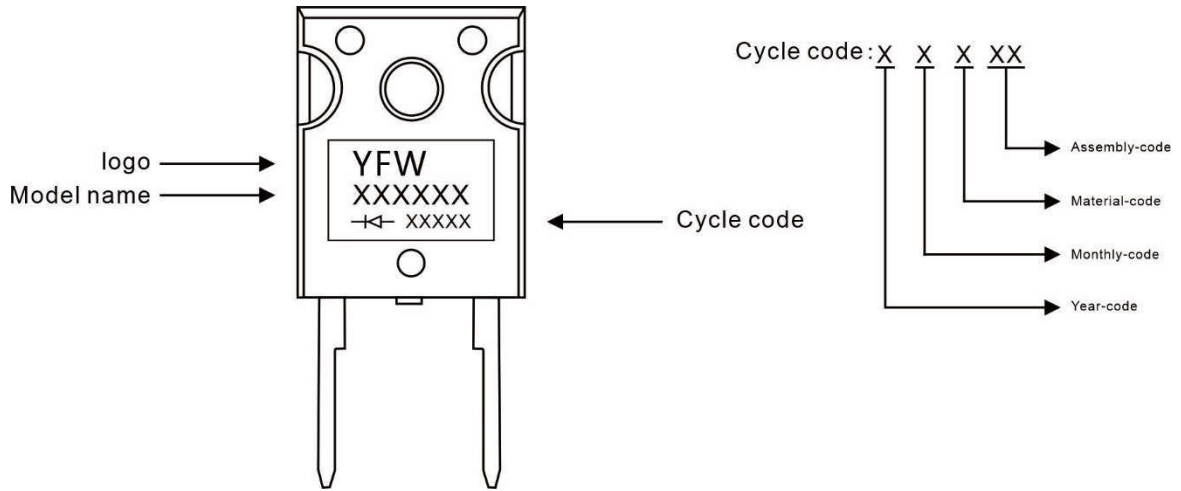
**FIG. 3-TYPICAL FORWARD VOLTAGE CHARACTERISTICS**



**FIG. 4-TYPICAL REVERSE LEAKAGE CHARACTERISTICS**



**Marking Diagram**

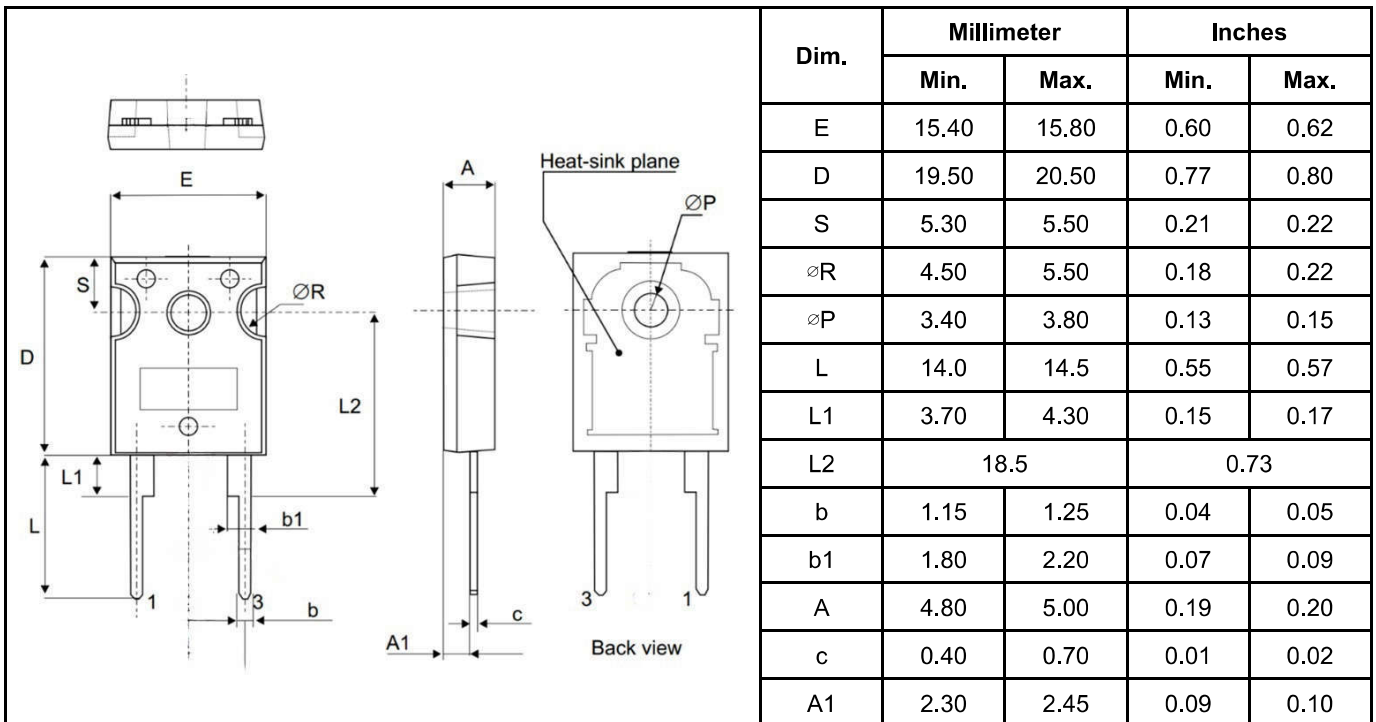


**Ordering information**

Model name	Package	Unit Weight	Base Quantity	Packing Quantity
<b>MUR6060WS</b>	TO-247S-2L	0.158oz(4.48g)	30pcs/tube	600PCS/Box 2400PCS/Carton

**Package Dimensions**

**TO-247S-2L**



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