

**ULTRAFAST RECOVERY RECTIFIERS**

**Reverse Voltage - 1000 V**

**Forward Current - 40 A**

**FEATURES**

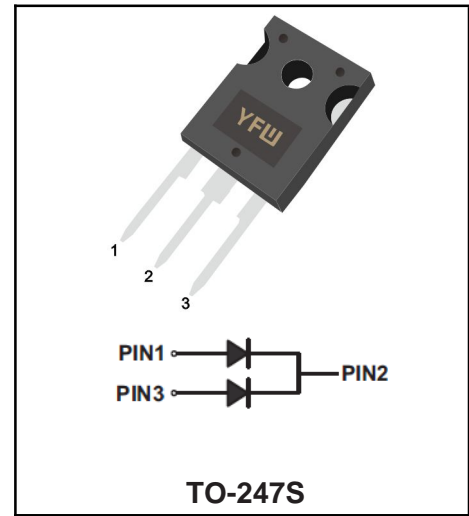
- ◆Fast switching for high efficiency
- ◆Low forward voltage drop
- ◆High current capability
- ◆Low reverse leakage current
- ◆High surge current capability

**MECHANICAL DATA**

- ◆Case: TO-247S/PTS
- ◆Polarity: As marked
- ◆Mounting Position: Any
- ◆Molded Plastic: UL Flammability Classification Rating 94V-0
- ◆Lead free in compliance with EU RoHS 2011/65/EU directive
- ◆Solder bath temperature 275°C maximum,10s per JESD 22-B106

**Primary Characteristic**

<b>I<sub>o</sub></b>	<b>2*20A</b>
<b>V<sub>RRM</sub></b>	<b>1000V</b>
<b>I<sub>FSM</sub></b>	<b>400A</b>
<b>V<sub>F</sub></b>	<b>1.9V</b>
<b>T<sub>J</sub> Max</b>	<b>150°C</b>



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

Characteristics		Symbol	Value	Unit
Maximum Repetitive Peak Reverse Voltage		<b>V<sub>RRM</sub></b>	1000	<b>V</b>
Working Peak Reverse Voltage		<b>V<sub>RWM</sub></b>	700	<b>V</b>
Maximum DC Blocking Voltage		<b>V<sub>DC</sub></b>	1000	<b>V</b>
Maximum Average Forward Rectified Current	Per Leg	<b>I<sub>o</sub></b>	20	<b>A</b>
	Total		40	
Peak Forward Surge Current,8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)		<b>I<sub>FSM</sub></b>	400	<b>A</b>
Maximum Instantaneous Forward Voltage @ 20.0 A (Per Diode/Per Leg)		<b>V<sub>F</sub></b>	1.9	<b>V</b>
Maximum DC Reverse Current @T <sub>J</sub> =25°C At Rated DC Blocking Voltage @T <sub>J</sub> =125°C		<b>I<sub>R</sub></b>	10 500	<b>uA</b> <b>uA</b>
Maximum Reverse Recovery Time at I <sub>F</sub> =0.5A, I <sub>R</sub> =1A,		<b>T<sub>rr</sub></b>	50	<b>ns</b>
Typical junction Capacitance (Note 2)		<b>C<sub>J</sub></b>	150	<b>pF</b>
Operating Temperature Range		<b>T<sub>J</sub></b>	150	<b>°C</b>
Storage Temperature Range		<b>T<sub>STG</sub></b>	-55 to +150	<b>°C</b>

**NOTES:**

- (1) Reverse recovery test conditions IF =0.5A IR = 1.0A Ir =0.25A.
- (2) Thermal Resistance junction to terminal.
- (3) Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts DC.

**RATINGS AND CHARACTERISTIC CURVES**

FIG.1 - FORWARD CURRENT DERATING CURVE

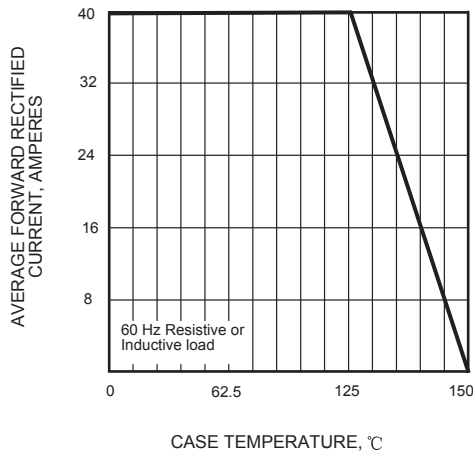


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

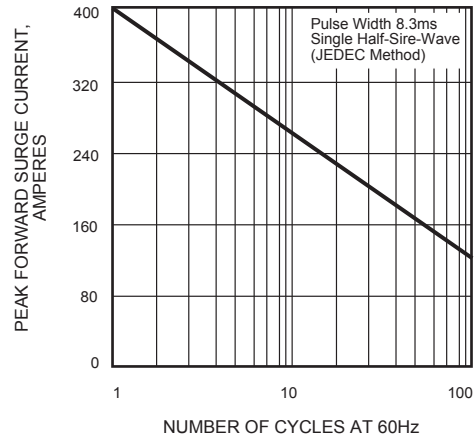


FIG.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

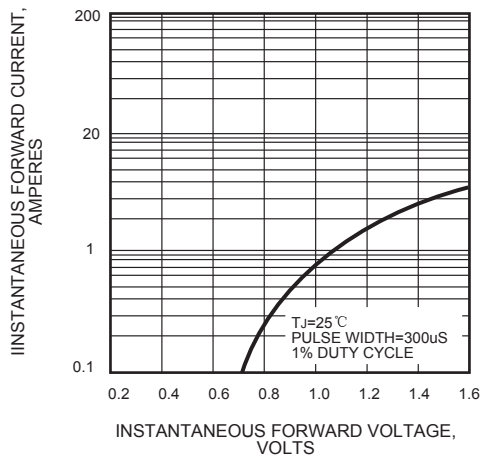


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

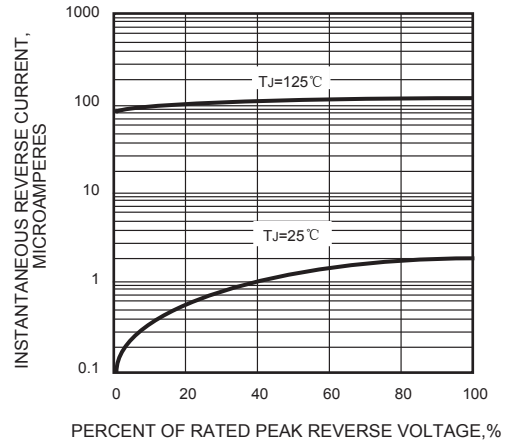
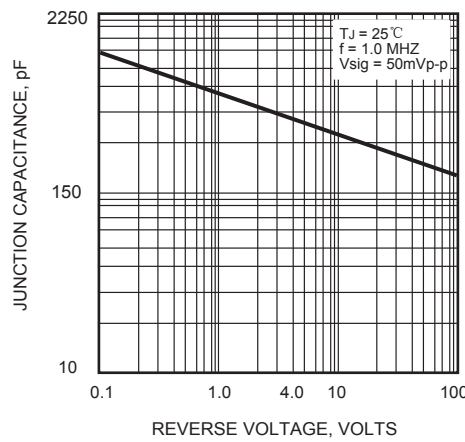
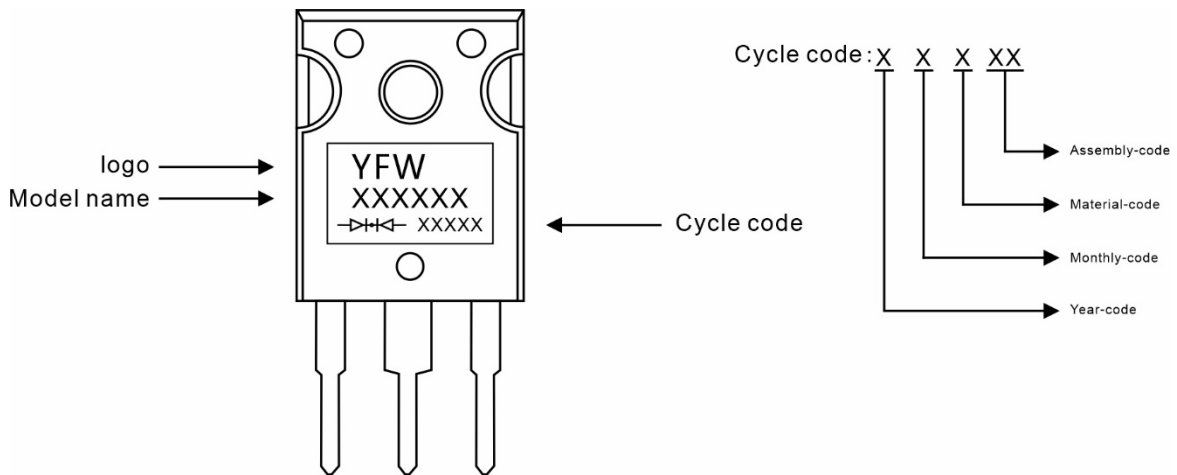


FIG.5 - TYPICAL JUNCTION CAPACITANCE



**Marking Diagram**

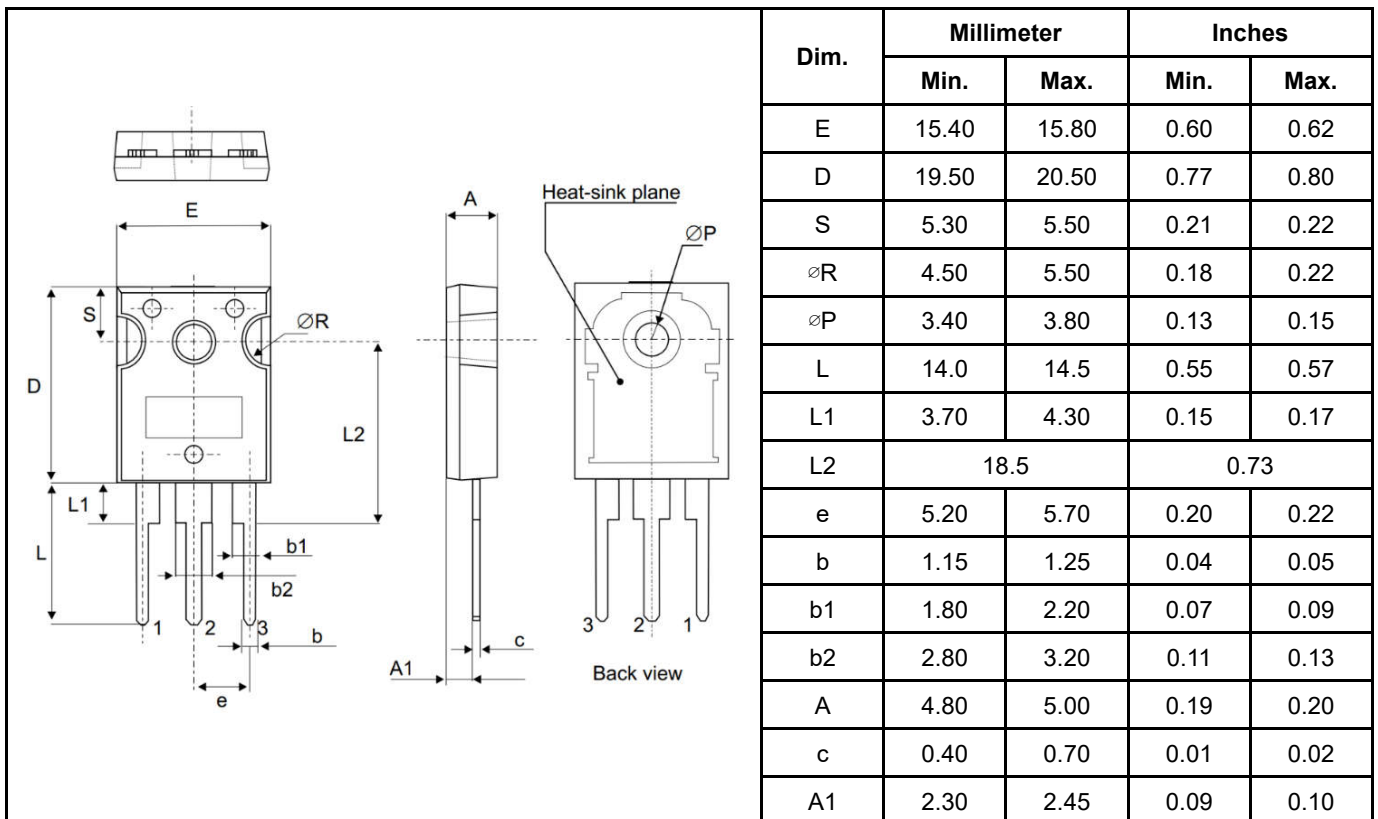


**Ordering information**

Model name	Package	Unit Weight	Base Quantity	Packing Quantity
MUR40100PTS	TO-247S	0.158oz(4.48g)	30pcs/tube	600PCS/Box 2400PCS/Carton

**Package Dimensions**

**TO-247S**



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