

**Schottky Barrier Rectifiers**

**Reverse Voltage - 150V**

**Forward Current - 80A**

**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 :Molded plastic body
- ◆ Terminals : Solder plated, solderable per MIL-STD-750,Method 2026
- ◆ Polarity : Polarity symbol marking on body
- ◆ Mounting Position : Any

**Primary Characteristic**

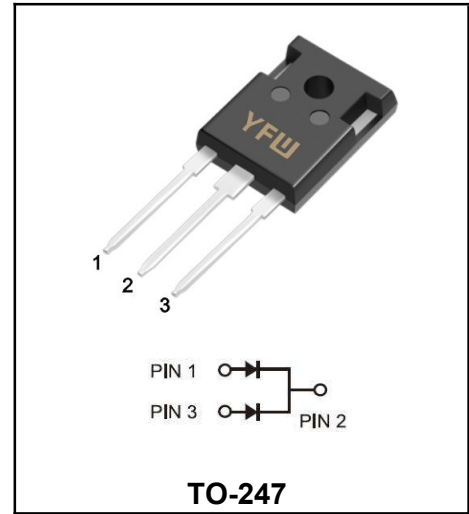
<b>I<sub>o</sub></b>	<b>2*40A</b>
<b>V<sub>RRM</sub></b>	<b>150V</b>
<b>I<sub>FSM</sub></b>	<b>300A</b>
<b>V<sub>F</sub></b>	<b>0.83V</b>
<b>T<sub>J</sub> Max</b>	<b>175°C</b>

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

Parameter	Symbols	Value	Units
Maximum Repetitive Peak Reverse Voltage	<b>V<sub>RRM</sub></b>	150	<b>V</b>
Maximum RMS voltage	<b>V<sub>RMS</sub></b>	105	<b>V</b>
Maximum DC Blocking Voltage	<b>V<sub>DC</sub></b>	150	<b>V</b>
Maximum average forward rectified current at TC=120°C	Per device	80	<b>A</b>
	Per diode	40	
Peak Forward Surge Current, 8.3ms Single Half Sine-wave	<b>I<sub>FSM</sub></b>	300	<b>A</b>
Operating Temperature Range	<b>T<sub>J</sub></b>	-55 to +175	<b>°C</b>
Storage Temperature Range	<b>T<sub>STG</sub></b>	-55 to +150	<b>°C</b>
Typical Thermal Resistance	<b>R<sub>θJC</sub></b>	1.5	<b>°C/W</b>

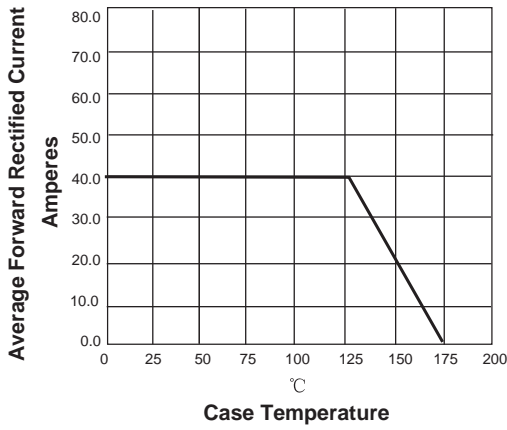
**Electrical Characteristics (Per Leg) unless otherwise specified**

Characteristics	Symbols	Typ	Max	Units
Maximum instantaneous forward voltage per diode at 40.0A	<b>V<sub>F</sub></b>	0.83	0.91	<b>V</b>
Maximum DC reverse current at rated DC blocking voltage	<b>I<sub>R</sub></b>	T <sub>A</sub> =25°C	50	<b>uA</b>
		T <sub>A</sub> =100°C	20	<b>mA</b>

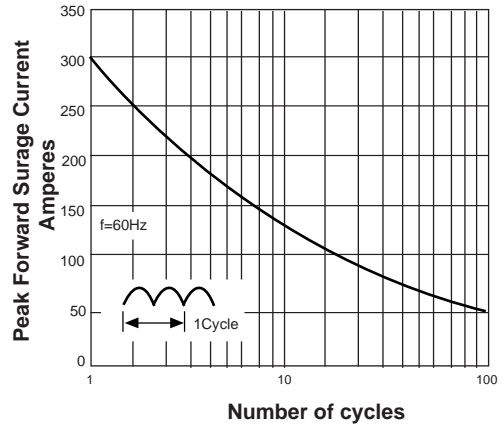


**RATINGS AND CHARACTERISTIC CURVES**

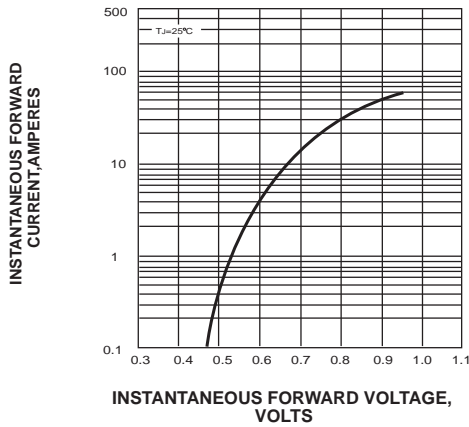
**FIG. 1- DERATING CURVE OUTPUT RECTIFIED CURRENT**



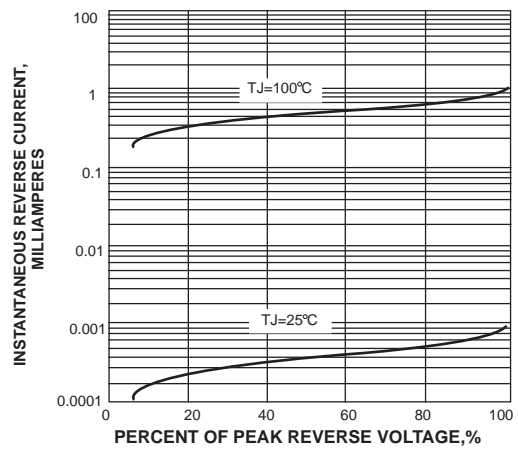
**FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER LEG**



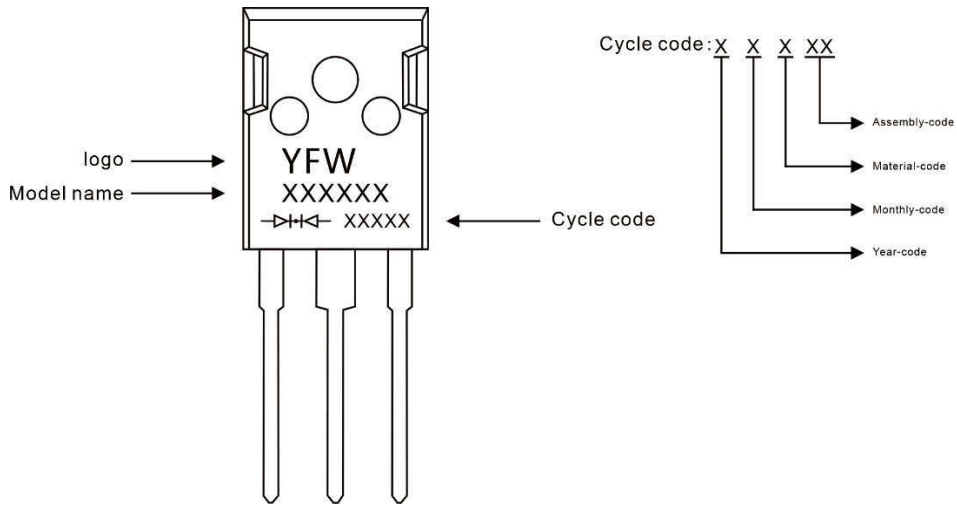
**FIG. 3-TYPICAL FORWARD VOLTAGE CHARACTERISTICS**



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



**Marking Diagram**



**Ordering information**

Model name	Package	Unit Weight	Base Quantity	Packing Quantity
MBR80150PT	TO-247	0.209oz(5.93g)	30pcs/tube	600PCS/Box 2400PCS/Carton

**Package Dimensions**

**TO-247**

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
b2	3.00	3.20	0.118	0.126
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
e	5.45 (BSC)		0.215 (BSC)	
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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