

**Low IR Schottky Barrier Rectifier**

**Reverse Voltage - 100 V**

**Forward Current - 5 A**

**FEATURES**

- ◆ The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- ◆ For surface mounted applications
- ◆ Built-in strain relief, ideal for automated placement
- ◆ High forward surge current capability
- ◆ High temperature soldering guaranteed  
260 °C/10 seconds at terminals

**MECHANICAL DATA**

- ◆ Case: SMBF
- ◆ Terminals: Solderable per MIL-STD-750, Method 2026
- ◆ Approx. Weight: 57mg / 0.002oz

**Absolute Maximum Ratings and Electrical characteristics**

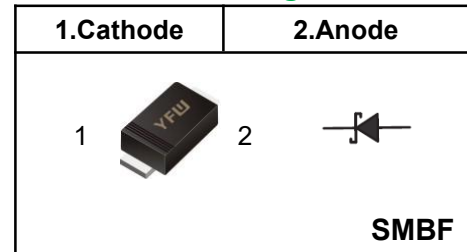
Ratings at 25 °C ambient temperature unless otherwise specified. Single phase, half wave, 60Hz resistive or inductive load, for capacitive load, derate by 20 %

Parameter	Symbols	HI510BF	Units
Maximum Repetitive Peak Reverse Voltage	<b>V<sub>RRM</sub></b>	100	<b>V</b>
Maximum RMS voltage	<b>V<sub>RMS</sub></b>	70	<b>V</b>
Maximum DC Blocking Voltage	<b>V<sub>DC</sub></b>	100	<b>V</b>
Maximum Average Forward Rectified Current at T <sub>L</sub> =100 °C	<b>I<sub>F(AV)</sub></b>	5.0	<b>A</b>
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load	<b>I<sub>FSM</sub></b>	120	<b>A</b>
Maximum Instantaneous Forward Voltage at 5.0 A	<b>V<sub>F</sub></b>	0.8	<b>V</b>
Maximum Instantaneous Reverse Current at Rated DC Reverse Voltage	<b>I<sub>R</sub></b>	0.1 0.5	<b>uA</b> <b>mA</b>
Typical Thermal Resistance	<b>R<sub>θJA</sub></b> <b>R<sub>θJL</sub></b>	58 16	<b>°C/W</b>
Operating Junction Temperature Range	<b>T<sub>J</sub></b>	-55 ~ +175	<b>°C</b>
Storage Temperature Range	<b>T<sub>stg</sub></b>	-55 ~ +150	<b>°C</b>

Note:

Thermal resistance from junction to ambient and from junction to lead mounted on P.C.B. with 0.3" x 0.3" (8.0 mm x 8.0 mm) copper pad areas

**Pinning**

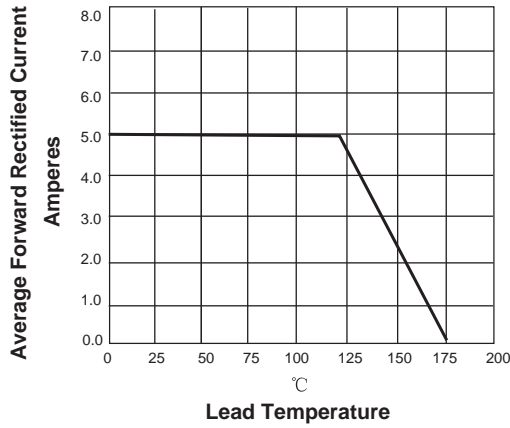


**Marking Code**

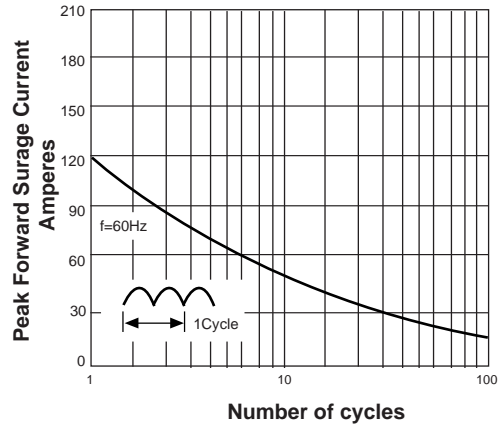
<b>HI510BF</b>	<b>YFW HI510B</b>
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**Ratings And Characteristic Curves**

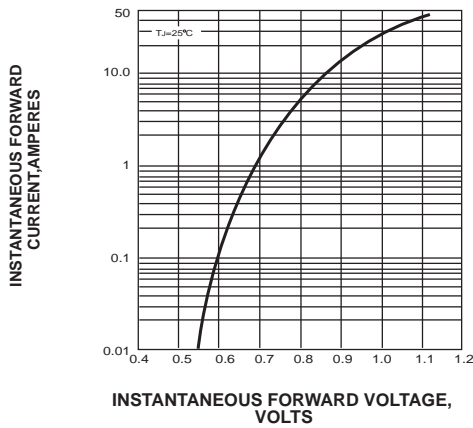
**FIG. 1- DERATING CURVE OUTPUT RECTIFIED CURRENT**



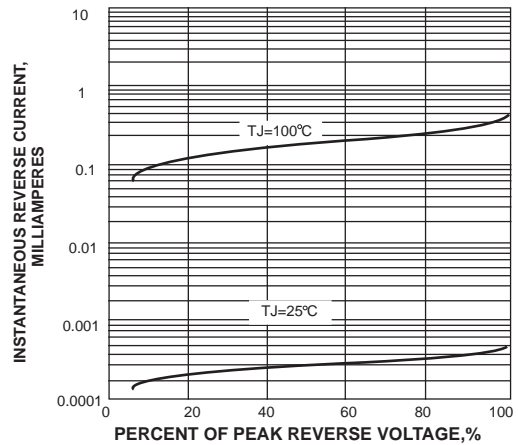
**FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER LEG**



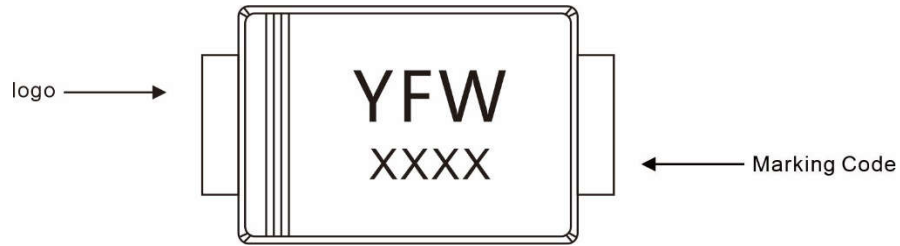
**FIG. 3-TYPICAL FORWARD VOLTAGE CHARACTERISTICS**



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



**Marking Diagram**



**Ordering information**

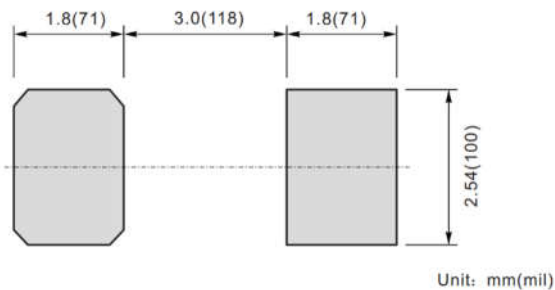
Package	Packing Description	Packing Quantity
SMBF	Tape/Reel, 13" reel	5000PCS/Reel 50000PCS/Carton

**Package Dimensions**

**SMBF**

Dim.	Millimeter(mm)		mil	
	Min.	Max.	Min.	Max.
A	1.1	1.3	43	51
C	0.18	0.26	7	10
D	4.2	4.4	165	173
E	3.5	3.7	138	146
H <sub>E</sub>	5.1	5.5	200	216
e	2.2	1.9	75	86
g	1.0		40	
∠	9°			

**The recommended mounting pad size**



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