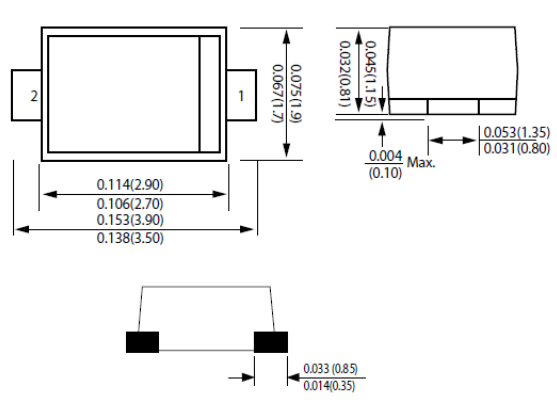


HIGH EFFICIENCY RECTIFIERS	REVERSE VOLTAGE 50 to 1000 Volts FORWARD CURRENT 1 Ampere
<p><b>FEATURES</b></p> <ul style="list-style-type: none"> <li>• Low profile package</li> <li>• Ideal for automated placement</li> <li>• Low reverse current</li> <li>• Fast reverse recovery time</li> </ul> <p><b>MECHANICAL DATA</b></p> <ul style="list-style-type: none"> <li>• Case: SOD-123FL</li> <li>• Polarity: Cathode Band</li> <li>• Weight: 0.002 grams (approximate)</li> </ul>	<p>SOD-123FL</p>  <p>Dimensions in inches and (millimeters)</p>

### 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 current by 20%

Characteristics	Symbol	HFM 101FL	HFM 102FL	HFM 103FL	HFM 104FL	HFM 105FL	HFM 106FL	HFM 107FL	Unit
Maximum repetitive peak reverse voltage	$V_{RRM}$	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	$V_{RMS}$	35	70	140	280	420	560	700	V
Maximum DC blocking voltage	$V_{DC}$	50	100	200	400	600	800	1000	V
<b>MARKING CODE</b>		H1	H2	H3	H4	H5	H6	H7	
Maximum Instantaneous forward voltage $I_F=1A$ @25°C	$V_F$	1.0		1.3		1.7			V
Maximum DC Reverse Current at Rated DC Blocking Voltage	$I_R$				5				$\mu A$
					100				
Maximum average forward rectified current	$I_{F(AV)}$				1				A
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load	$I_{FSM}$				30				A
Typical Junction Capacitance (NOTE1)	$C_J$	550							pF
Maximum Reverse Recovery Time (NOTE2)	$T_{rr}$	50			75				nS
Typical Thermal Resistance (NOTE3)	$R_{\theta JA}$				80				°C/W
Junction and Storage Temperature Range	$T_J, T_{STG}$				-55 to +150				°C

### NOTES:

1. Measured at 1.0MHZ and applied reverse voltage of 4.0V DC
2. Measured with  $I_F=0.5A, I_R=1A, I_{RR}=0.25A$
3. Device mounted on FR-4 substrate, 1\*\*1", 2oz, single-sided, PC boards with 0.1\*\*0.15" copper pad.

## Rating and Characteristic Curves

FIG. 1-TYPICAL FORWARD CURRENT DERATING CURVE

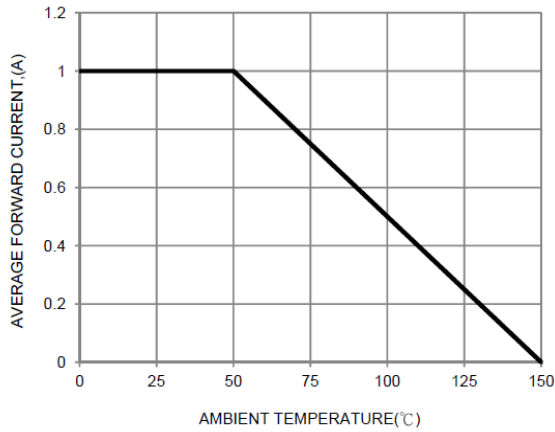


FIG. 2-TYPICAL FORWARD CHARACTERISTICS

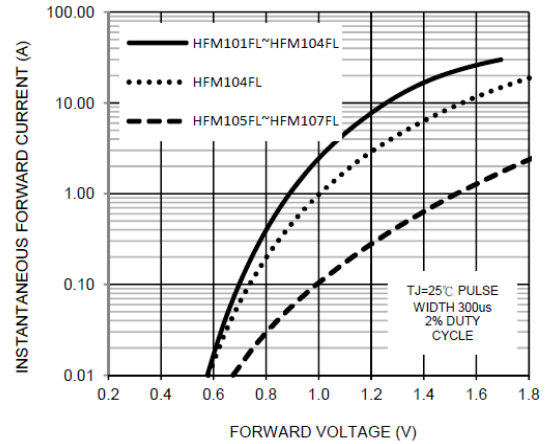


FIG. 3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

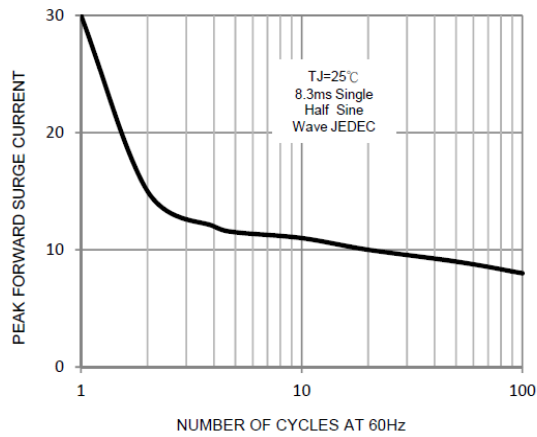


FIG. 4-TYPICAL REVERSE CHARACTERISTICS

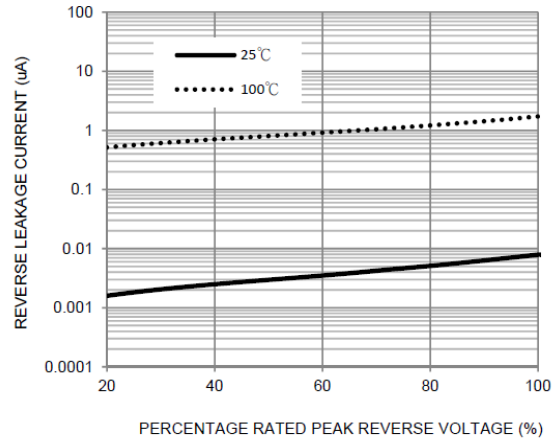


FIG. 5-TYPICAL JUNCTION CAPACITANCE

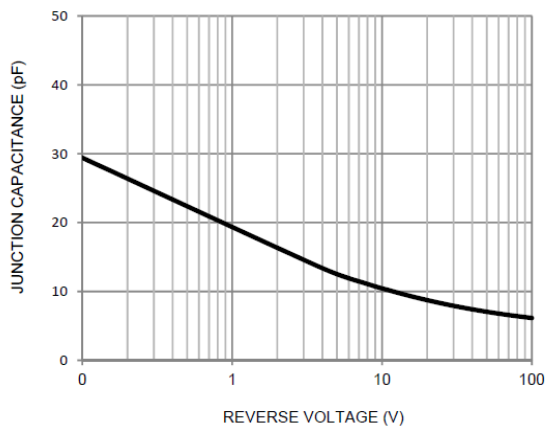


FIG. 6-Reverse Recovery Time Characteristic and Test Circuit

