

<p><b>FAST RECOVERY RECTIFIERS</b></p> <p><b>FEATURES</b></p> <ul style="list-style-type: none"> <li>● Fast switching for high efficiency</li> <li>● Low cost</li> <li>● Diffused junction</li> <li>● Low reverse leakage current</li> <li>● Low forward voltage drop</li> <li>● High current capability</li> <li>● The plastic material carries UL recognition 94V-0</li> </ul> <p><b>MECHANICAL DATA</b></p> <ul style="list-style-type: none"> <li>● Case: JEDEC DO-27 molded plastic</li> <li>● Polarity: Color band denotes cathode</li> <li>● Weight: 0.04 ounces , 1.1 grams</li> <li>● Mounting position: Any</li> </ul>	<p style="text-align: center;">REVERSE VOLTAGE - <b>50</b> to <b>1000</b> Volts FORWARD CURRENT - <b>3.0</b> Amperes</p> <div style="text-align: center;"> <p><b>DO-27</b></p> </div> <p style="text-align: center;">Dimensions in inches and (millimeters)</p>
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**MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**

Rating 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	FR301	BY396	BY397	BY398	FR305	BY399	FR307	UNIT
			FR302	FR303	FR304		FR306		
Maximum Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	V <sub>RMS</sub>	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V <sub>DC</sub>	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current @T <sub>A</sub> =75 °C	I <sub>(AV)</sub>	3.0							A
Peak Forward Surge Current 8.3ms Single Half Sine-Wave Super Imposed on Rated Load(JEDEC Method)	I <sub>FSM</sub>	150							A
Peak Forward Voltage at 3.0A DC	V <sub>F</sub>	1.3							V
Maximum DC Reverse Current @T <sub>J</sub> =25°C at Rated DC Blocking Voltage @T <sub>J</sub> =100°C	I <sub>R</sub>	5.0							uA
Maximum Reverse Recovery Time(Note 1)	T <sub>RR</sub>	150				250	500		
Typical Junction Capacitance (Note2)	C <sub>J</sub>	65				40			pF
Typical Thermal Resistance (Note3)	R <sub>θJA</sub>	15							°C/W
Operating Temperature Range	T <sub>J</sub>	-50 to +125							°C
Storage Temperature Range	T <sub>STG</sub>	-50 to +150							°C

NOTES: 1. Measured with I<sub>F</sub>=0.5A, I<sub>R</sub>=1A, I<sub>RR</sub>=0.25A

2. Measured at 1.0 MHz and applied reverse voltage of 4.0V DC

3. Thermal resistance junction of ambient.

FIG. 1 – FORWARD CURRENT DERATING CURVE

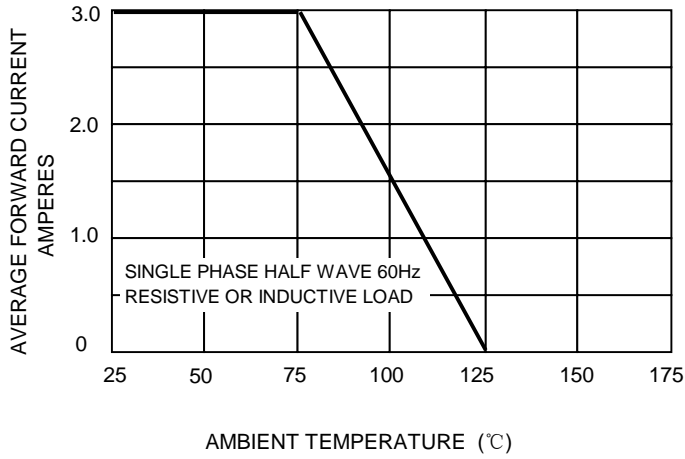


FIG. 2 – MAXIMUM NON-REPETITIVE SURGE CURRENT

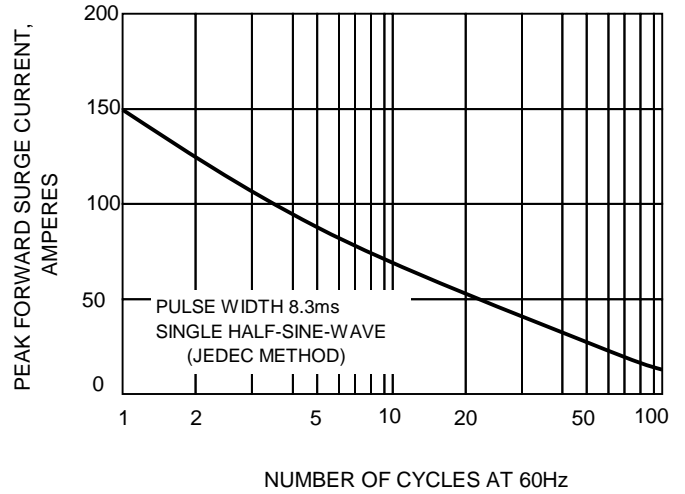


FIG.3 – TYPICAL JUNCTION CAPACITANCE

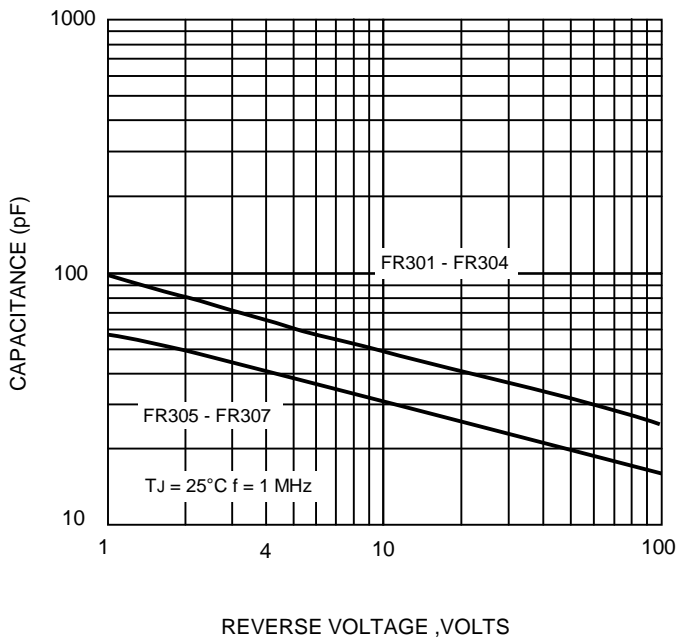


FIG.4-TYPICAL FORWARD CHARACTERISTICS

