

<p>FAST RECOVERY RECTIFIERS</p> <p>FEATURES</p> <ul style="list-style-type: none"> ● Fast switching for high efficiency ● Low cost ● Diffused junction ● Low reverse leakage current ● Low forward voltage drop ● High current capability ● The plastic material carries UL recognition 94V-0 <p>MECHANICAL DATA</p> <ul style="list-style-type: none"> ● Case: JEDEC A-405 molded plastic ● Polarity: Color band denotes cathode ● Weight: 0.008 ounces , 0.22 grams ● Mounting position: Any 	<p>REVERSE VOLTAGE - 50 to 1000 Volts FORWARD CURRENT - 1.0 Ampere</p> <p style="text-align: center;">A-405</p> <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	FR101S	FR102S	FR103S	FR104S	FR105S	FR106S	FR107S	UNIT
Maximum Recurrent 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
Maximum Average Forward Rectified Current @T _A =75 °C	I _(AV)	1.0							A
Peak Forward Surge Current 8.3ms Single Half Sine-Wave Super Imposed on Rated Load(JEDEC Method)	I _{FSM}	30							A
Peak Forward Voltage at 1.0A DC	V _F	1.3							V
Maximum DC Reverse Current @T _J =25°C at Rated DC Blocking Voltage @T _J =100°C	I _R	5.0 100							μA
Maximum Reverse Recovery Time (Note 1)	T _{rr}	150			250		500		nS
Typical Junction Capacitance (Note2)	C _J	25			15				pF
Typical Thermal Resistance (Note3)	R _{θJA}	25							°C/W
Operating Temperature Range	T _J	-55 to +150							°C
Storage Temperature Range	T _{STG}	-55 to +150							°C

NOTES: 1. Measured with I_F=0.5A, I_R=1A, I_{RR}=0.25A
2. Measured at 1.0 MHz and applied reverse voltage of 4.0V DC
3. Thermal resistance junction to ambient.

FIG. 1 – FORWARD CURRENT DERATING CURVE

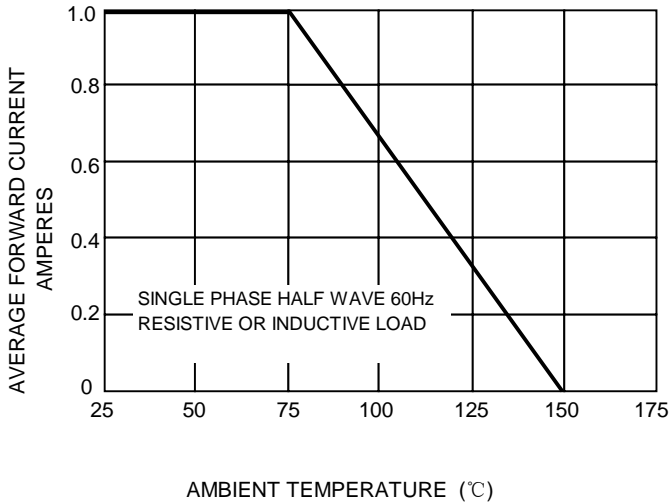


FIG. 2 – MAXIMUM NON-REPETITIVE SURGE CURRENT

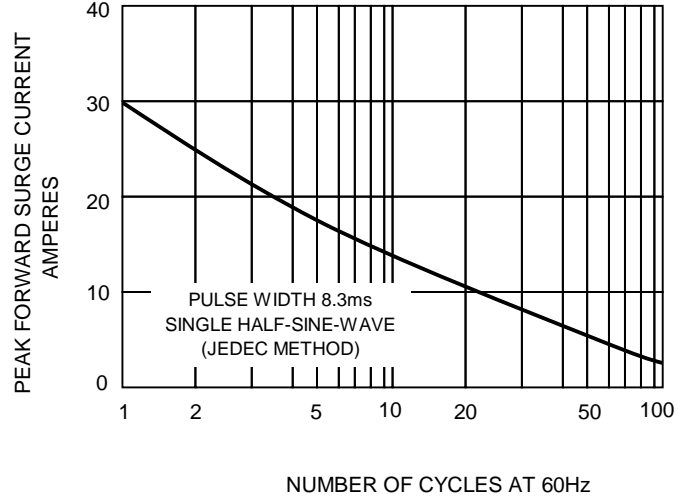


FIG.3 – TYPICAL JUNCTION CAPACITANCE

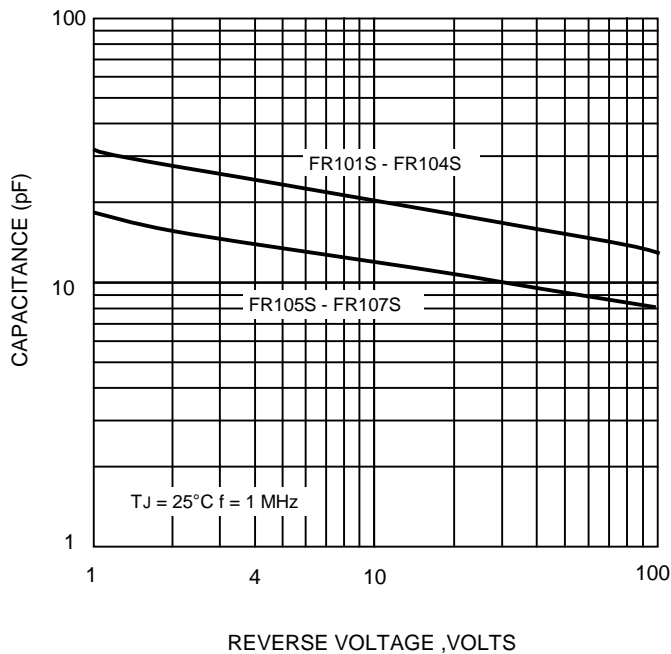


FIG.4-TYPICAL FORWARD CHARACTERISTICS

