

Fast Recovery Rectifier



Features

- 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

Mechanical Data

Case	: JEDEC DO-15 molded plastic
Polarity	: Colour band denotes cathode
Weight	: 0.015 ounces, 0.4 grams
Mounting Position	: Any
Reverse Voltage	: 200 to 1000 Volts
Forward Current	: 2 Ampere

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	FR203	FR207	Unit
Max. Recurrent Peak Reverse Voltage	V_{RRM}	200	1000	V
Max. RMS Voltage	V_{RMS}	140	700	V
Max. DC Blocking Voltage	V_{DC}	200	1000	V
Max. Average Forward Rectified Current @ $T_A = 75^\circ\text{C}$	$I_{(AV)}$	2.0		A
Peak Forward Surge Current 8.3ms Single Half Sine-Wave Super Imposed on Rated Load (JEDEC Method)	I_{FSM}	60		A
Peak Forward Voltage at 2A DC	V_F	1.3		V
Maximum DC Reverse Current @ $T_J = 25^\circ\text{C}$ at Rated DC Blocking Voltage @ $T_J = 100^\circ\text{C}$	I_R	5 100		μA
Maximum Reverse Recovery Time (Note 1)	T_{rr}	150	500	nS
Typical Junction Capacitance (Note 2)	C_J	30	20	pF
Typical Thermal Resistance (Note 3)	$R_{\theta JA}$	25		$^\circ\text{C/W}$
Operating Temperature Range	T_J	-55 to +150		$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-55 to +150		$^\circ\text{C}$

Notes : 1. Measured with $I_F = 0.5\text{A}$, $I_R = 1\text{A}$, $I_{RR} = 0.25\text{A}$
2. Measured at 1MHz and applied reverse voltage of 4V DC
3. Thermal resistance junction to ambient.
4. The typical data above is for reference only

Ratings and Characteristic Curves

FIG. 1 – FORWARD CURRENT DERATING CURVE

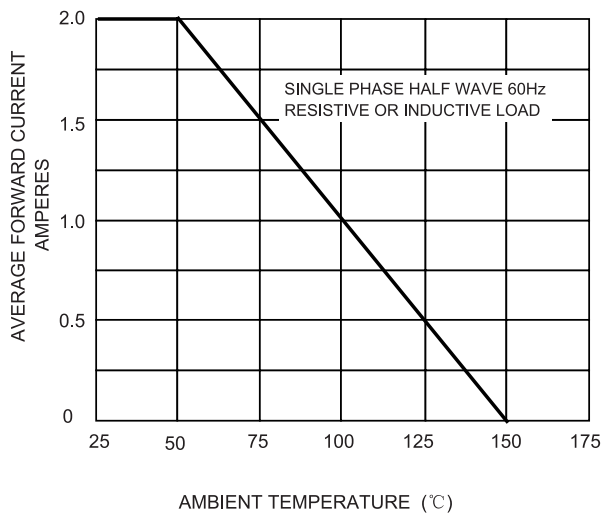


FIG. 2 – MAXIMUM NON-REPETITIVE SURGE CURRENT

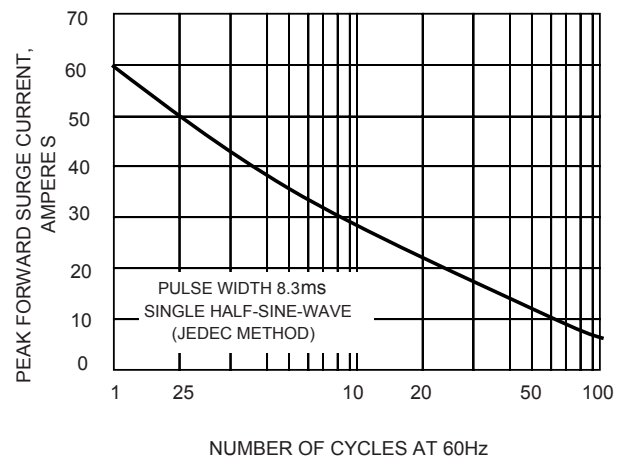


FIG. 3 – TYPICAL JUNCTION CAPACITANCE

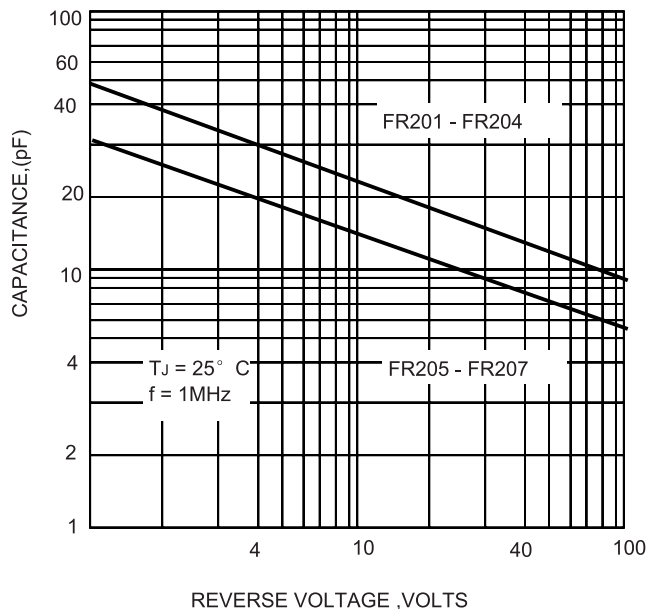
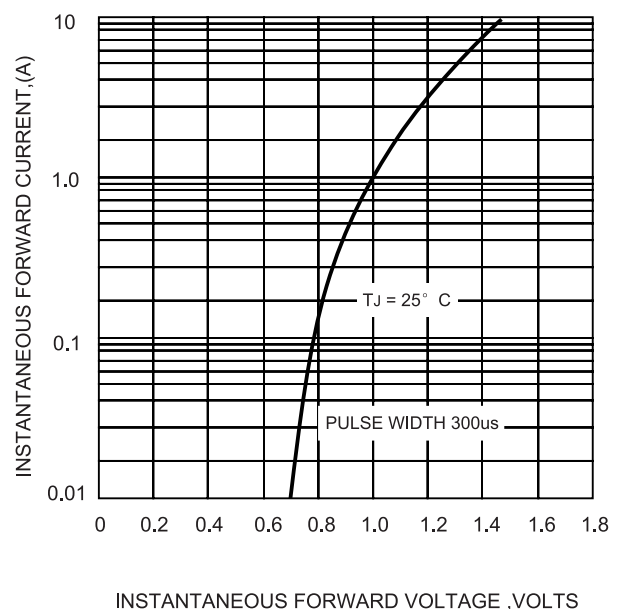


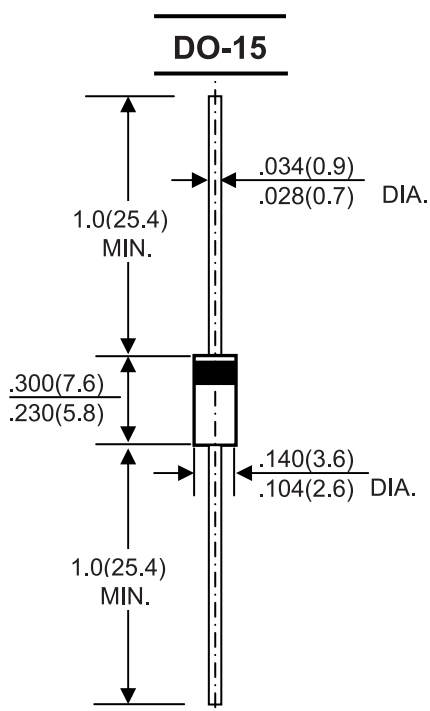
FIG.4-TYPICAL FORWARD CHARACTERISTICS



Fast Recovery Rectifier



Dimensions:



Dimensions : Inches (Millimetres)

Part Number Table

Description	Part Number
Fast Recovery Rectifiers	FR203
	FR207

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