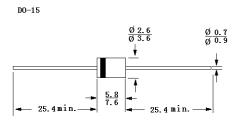
# **FR201 THRU FR207**

# FAST RECOVERY RECTIFIERS Reverse Voltage – 50 to 1000 Volts Forward Current – 2.0 Amperes

#### **Features**

- High Current Capability
- Fast switching for high efficiency
- Low Leakage.
- 2 ampere operation at  $T_A = 55^{\circ}$ C with no thermal runaway



Dimensions in mm

### **Mechanical Data**

• Case: Molded plastic, DO-15

• Lead: Axial leads, solderable per MIL-STD-202, method 208 guaranteed.

• Polarity: Color band denotes cathode end

• Mounting Position: Any

## **Absolute Maximum Ratings and Characteristics**

Ratings at  $25^{\circ}$ C ambient temperature unless otherwise specified, single phase, half wave, 60Hz, resistive or inductive load, for capacitive load, derate current by 20%.

		Symbols	FR201	FR202	FR203	FR204	FR205	FR206	FR207	Units
Maximum repetitive peak reverse voltage		$V_{RRM}$	50	100	200	400	600	800	1000	Volts
Maximum RMS voltage		V <sub>RMS</sub>	35	70	140	280	420	560	700	Volts
Maximum DC blocking voltage		$V_{DC}$	50	100	200	400	600	800	1000	Volts
Average forward rectified current .375" (9.5mm) lead length at $T_A = 55^{\circ}\mathrm{C}$		I <sub>(AV)</sub>	2							Amp
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC method)		I <sub>FSM</sub>	70							Amps
Maximum forward voltage at 2A DC and 25°C		$V_{F}$	1.3							Volts
Maximum reverse current at rated DC blocking voltage	$T_A = 25^{\circ}\mathbb{C}$ $T_A = 100^{\circ}\mathbb{C}$	I <sub>R</sub>	5 500							μA
Maximum reverse recovery time (Note 1)		T <sub>rr</sub>	150			250	500		nS	
Typical junction capacitance (Note 2)		CJ	35							pF
Typical thermal resistance (Note3)		$R_{\Theta JA}$	22							°C/W
Operating and storage temperature range		T <sub>J</sub> ,T <sub>Stg</sub>	-55 to +150							°C

 $<sup>^{1)}</sup>$  Reverse recovery test conditions:  $I_F = 0.5A$ ,  $I_R = 1A$ ,  $I_{rr} = 0.25A$ .







 $<sup>^{\</sup>rm 2)}$  Measured at 1MHz and applied reverse voltage of 4 VDC .

<sup>3)</sup> Thermal resistance junction to ambient and form junction to lead at 0.375" (9.5mm) lead length P.C.B. mounted.