

FR201 THRU FR207

FAST RECOVERY RECTIFIERS

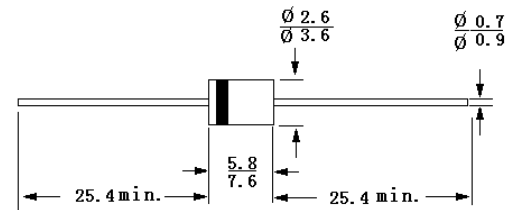
Reverse Voltage – 50 to 1000 Volts

Forward Current – 2.0 Amperes

Features

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

DO-15



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

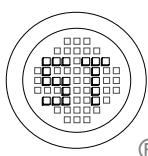
Ratings at 25°C ambient temperature unless otherwise specified, single phase, half wave, 60Hz, resistive or inductive load, for capacitive load, derate current by 20%.

	Symbols	FR 201	FR 202	FR 203	FR 204	FR 205	FR 206	FR 207	Units
Maximum repetitive peak reverse voltage	V _{RRM}	50	100	200	400	600	800	1000	Volts
Maximum RMS voltage	V _{RMS}	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°C	I _(AV)	2							Amp
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I _{FSM}	70							Amps
Maximum forward voltage at 2A DC and 25°C	V _F	1.3							Volts
Maximum reverse current T _A = 25°C at rated DC blocking voltage T _A = 100°C	I _R	5 500							µA
Maximum reverse recovery time (Note 1)	T _{rr}	150				250	500		nS
Typical junction capacitance (Note 2)	C _J	35							pF
Typical thermal resistance (Note3)	R _{θJA}	22							°C/W
Operating and storage temperature range	T _J , T _S	-55 to +150							°C

1) Reverse recovery test conditions: $I_F = 0.5\text{A}$, $I_R = 1\text{A}$, $I_{rr} = 0.25\text{A}$.

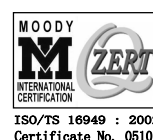
2) Measured at 1MHz and applied reverse voltage of 4 VDC .

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



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