

FR201 THRU FR207

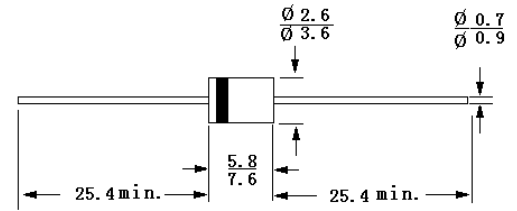
FAST RECOVERY RECTIFIERS

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



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

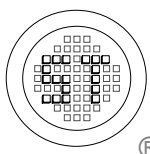
Ratings at 25°C ambient temperature unless otherwise specified, single phase, half wave, 60Hz, resistive or inductive load, for capacitive load, derate current by 20%.

	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 $T_A = 55^\circ\text{C}$	$I_{(AV)}$	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 at rated DC blocking voltage $T_A = 25^\circ\text{C}$ / $T_A = 100^\circ\text{C}$	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)	$R_{\theta JA}$	22							$^\circ\text{C/W}$
Operating and storage temperature range	T_J, T_S	-55 to +150							$^\circ\text{C}$

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

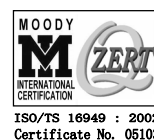
2) Measured at 1MHz and applied reverse voltage of 4 VDC .

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



SEMTECH ELECTRONICS LTD.

(Subsidiary of Semtech International Holdings Limited, a company listed on the Hong Kong Stock Exchange, Stock Code: 724)



ISO/TS 16949 : 2002
Certificate No. 05103



ISO 14001
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ISO 9001 : 2000
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