






Fast Recovery Rectifiers

Fast Recovery Rectifiers are available for designs that require a power rectifier with maximum switching times ranging from 200 ns to 750 ns. These devices are offered in current ranges of 1 to 30 amperes and in voltages to 600 volts.

All devices are connected cathode-to-case or cathode-to-heatsink, where applicable. Reverse polarity may be available on some devices upon special request. Contact your Motorola representative for more information.

Table 6 — Fast Recovery Rectifiers

VRRM (Volts)	I _O , AVERAGE RECTIFIED FORWARD CURRENT (Amperes) ⁽¹⁾				
	1	3		5	6
	59-03 Plastic Cathode = Polarity Band 	60-01 Metal Style 1 	267-03 Plastic Cathode = Polarity Band 	194-04 Plastic Style 1 	245A-02 (DO-203AA) Metal Style 2 
50	1N4933(3)	MR830	MR850	MR820	1N3879
100	1N4934(3)	MR831	MR851	MR821	1N3880
200	1N4935 (3)	MR832	MR852	MR822	1N3881
400	1N4936(3)	MR834	MR854	MR824	1N3883
600	1N4937 (3)	MR836	MR856	MR826	MR1366
I _{FSM} (Amps)	30	100	100	300	150
T _A @ Rated I _O (°C)	75		90(8)	55(8)	
T _C @ Rated I _O (°C)		100			100
T _J (Max) °C	150	150	175	175	150
t _{rr} (μs)	0.2	0.2	0.2	0.2	0.2





(1) I_O is total device output.

(3) Package Size: 0.120" max diameter by 0.260" max length.

(8) Must be derated for reverse power dissipation. See data sheet.

Devices listed in bold, italic are Motorola preferred devices.

Table 6 — Fast Recovery Rectifiers (continued)

	I_O , AVERAGE RECTIFIED FORWARD CURRENT (Amperes) ⁽¹⁾			
	12	20	24	30
V_{RRM} (Volts)	245A-02 (DO-203AA) Metal Style 2 	42A-01 (DO-203AB) Metal Style 2 	339-02 Plastic ⁽⁴⁾ Style 1 	42A-01 (DO-203AB) Metal Style 2 
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50	1N3889	1N3899	MR2400F	1N3909
100	1N3890	1N3900	MR2401F	1N3910
200	1N3891	1N3901	MR2402F	1N3911
400	1N3893	1N3903	MR2404F	1N3913
600	MR1376	MR1386	MR2406F	MR1396
I_{FSM} (Amps)	200	250	300	300
T_A @ Rated I_O (°C)				
T_C @ Rated I_O (°C)	100	100	125	100
T_J (Max) °C	150	150	175	150
t_{rr} (μ s)	0.2	0.2	0.2	0.2

⁽¹⁾ I_O is total device output.

⁽⁴⁾ Meets mounting configuration of TO-220 outline.

Devices listed in bold, italic are Motorola preferred devices.

* Not recommended for new designs.