

Rectifiers

From tiny, lead-mounted, low-current rectifiers to powerful multi-cell units with near-thousand-amp capacity; from single-phase, half-wave devices to three-phase circuits; from conventional diode junctions to special-purpose units for specific applications, Motorola's extensive line of rectifiers satisfies every possible requirement for electronic equipment. Moreover, volume production unmatched in the industry offers low-cost selection potential.

Standard Recovery

... for general purpose industrial and consumer application requiring:

- high surge current;
- peak performance at elevated temperature;
- compact packages;
- Low cost.

		I _O Average rectified forward current (Amperes)					
		1.0	3.0			6.0	12
V _{RRM} (Volts)	Case	59-04	60	70	267	194	245 (DO-4)
50		1N4001*	1N4719	1N4997	MR500	MR750	MR1120
100		1N4002*	1N4720	1N4998	MR501	MR751	MR1121
200		1N4003*	1N4721	1N4999	MR502	MR752	MR1122
400		1N4004*	1N4722	1N5000	MR504	MR754	MR1124
600		1N4005*			MR506	MR756	MR1126
800		1N4006*			MR508		MR1128
1000		1N4007*			MR510		MR1130
I _{FSM} (Amps)		30	300	300	100	400	300
T _A @ Rated I _O (°C)		75	75	75	95	60	
T _C @ Rated I _O (°C)							150
T _{JRRM} * (°C)		175	175	175	175	175	190
t _{rr} (μs)							
f _{TJ} (Max.)							

Fast Recovery

... available for designs requiring a power rectifier having typical switching times 100 ns. These devices are offered in current ranges of 1.0 to 50 amperes and in voltages to 600. Higher voltages are available upon request, but a necessary trade-off against switching speed results. Reverse polarity (anode to case) obtained by adding an "R" suffix.

		I _O (Amps)					
		1.0	3.0			5.0	6.0
V _{RRM} (Volts)	Case	59.04	60	70	267-01	194	
50		1N4933	MR830	MR800	MR850	MR820	1N3879
100		1N4934	MR831	MR801	MR851	MR821	1N3880
200		1N4935	MR832	MR802	MR852	MR822	1N3881
400		1N4936	MR834	MR804	MR854	MR824	1N3883
600		1N4937	MR836	MR806	MR856	MR826	MR1366
I _{FSM} (amps)		30	100	100	100	300	150
T _A at Rated I _O (°C)		75			90 ¹	55 ¹	
T _A at Rated I _O (°C)			100	100			100
T _{JRRM} ² (°C)		150	150	150	175	175	150
t _{rr} (μs)		0.2	0.2	0.2	0.2	0.2	0.2