

New Jersey Semi-Conductor Products, Inc.

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MR2400F thru MR2406F

FAST RECOVERY
POWER RECTIFIERS
50-600 VOLTS
24 AMPERES

MAXIMUM RATINGS

Rating	Symbol	MR2400F	MR2401F	MR2402F	MR2404F	MR2406F	Unit
Peak Repetitive Reverse Voltage	V _{RRM}						Volts
Working Peak Reverse Voltage	V _{RWM}	50	100	200	400	600	Volts
DC Blocking Voltage	V _R						Volts
Nonrepetitive Peak Reverse Voltage	V _{RSM}	75	150	250	450	650	Volts
RMS Reverse Voltage	V _{R(RMS)}	35	70	140	280	420	Volts
Average Rectified Forward Current (Single phase, resistive load, T _C = 125°C)	I _O		24				Amp
Nonrepetitive Peak Surge Current (surge applied @ rated load conditions)	I _{FSM}		300 (for 1 cycle)				Amp
Operating Junction Temperature Range	T _J		-65 to +150				°C
Storage Temperature Range	T _{Stg}		-65 to +175				°C

THERMAL CHARACTERISTICS

Characteristic	Symbol	Max	Unit
Thermal Resistance, Junction to Case	R _{θJC}	0.8	°C/W
Thermal Resistance, Junction to Air, PC Board Mount; Perpendicular to Surface	R _{θJA}	55	°C/W

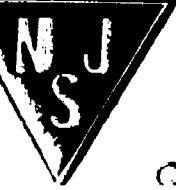
ELECTRICAL CHARACTERISTICS

Characteristic	Symbol	Min	Typ	Max	Unit
Instantaneous Forward Voltage (I _F = 75 Amp, T _J = 150°C)	V _F	—	1.15	1.29	Volts
Forward Voltage (I _F = 24 Amp, T _C = 25°C)	V _F	—	1.00	1.15	Volts
Reverse Current (rated dc voltage) T _C = 25°C T _C = 100°C T _C = 150°C	I _R	— — —	10 0.5 7.0	25 1.0 10	μA mA mA

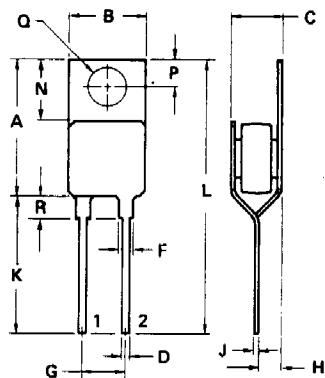
REVERSE RECOVERY CHARACTERISTICS

Characteristic	Symbol	Min	Typ	Max	Unit
Reverse Recover Time — Soft Recovery (I _F = 1.0 Amp to V _R = 30 Vdc, Figure 19) (I _{FM} = 36 Amp, dI/dt = 25 A/μs, Figure 20)	t _{rr}	— —	150 200	200 300	ns
Reverse Recovery Current (I _F = 1.0 Amp to V _R = 30 Vdc, Figure 19)	I _{RM(REC)}	—	—	4.0	Amp

NJ Semi-Conductors reserves the right to change test conditions, parameter limits and package dimensions without notice. Information furnished by NJ Semi-Conductors is believed to be both accurate and reliable at the time of going to press. However, NJ Semi-Conductors assumes no responsibility for any errors or omissions discovered in its use. NJ Semi-Conductors encourages customers to verify that datasheets are current before placing orders.



Quality Semi-Conductors



1-CATHODE 2-ANODE

DIM	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	14.22	15.88	0.560	0.625
B	9.65	10.67	0.380	0.420
C	7.21	7.87	0.284	0.310
D	0.64	1.14	0.025	0.045
F	1.52	2.29	0.060	0.090
G	4.32	5.33	0.170	0.210
H	2.03	2.92	0.080	0.115
J	0.58	0.74	0.023	0.029
K	—	14.27	—	0.562
L	—	30.15	—	1.187
N	5.84	6.86	0.230	0.270
P	2.54	3.05	0.100	0.120
Q	3.53	3.73	0.139	0.147
R	—	5.08	—	0.200