

New Jersey Semi-Conductor Products, Inc.

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**MUR5005
MUR5010
MUR5015
MUR5020**



SWITCHMODE POWER RECTIFIERS

designed for use in switching power supplies, inverters and as free wheeling diodes, these state-of-the-art devices have the following features

- Ultrafast 50 Nanosecond Recovery Time
- Low Forward Voltage Drop
- Hermetically Sealed Metal DO-203AB Package

ULTRAFAST RECTIFIERS

50 AMPERES
50 to 200 VOLTS



DO-203AB
METAL

MAXIMUM RATINGS

Rating	Symbol	MUR				Unit
		5005	5010	5015	5020	
Peak Repetitive Reverse Voltage	V _{RRM}					
Working Peak Reverse Voltage	V _{RWM}	50	100	150	200	Volts
DC Blocking Voltage	V _R					
Nonrepetitive Peak Reverse Voltage	V _{RSM}	55	110	165	220	Volts
Average Forward Current $T_J = 125^\circ C$	I _{F(AV)}	50				Amps
Nonrepetitive Peak Surge Forward Current (half cycle, 60 Hz, Sinusoidal Waveform)	I _{FSM}	600				Amps
Operating Junction and Storage Temperature	T _J , T _{Stg}	-55 to +175				°C

MECHANICAL CHARACTERISTICS

CASE: Welded, hermetically sealed
FINISH: All external surface corrosion
resistant and terminal leads are
readily solderable

POLARITY: Cathode to Case

MOUNTING POSITIONS: Any

MOUNTING TORQUE: 25 in-lb max

THERMAL CHARACTERISTICS

Rating	Symbol	All Devices	Unit
Thermal Resistance, Junction to Case	R _{θJC}	10	°C/W

ELECTRICAL CHARACTERISTICS

Maximum Instantaneous Forward Voltage Drop (I _F = 50 Amp, T _J = 25°C) (I _F = 50 Amp, T _J = 125°C) (I _F = 100 Amp, T _J = 125°C)	V _F	1.15 0.95 1.10	Volts
Maximum Reverse Current @ DC Voltage (T _J = 25°C) (T _J = 125°C)	I _R	10 1.0	μA mA
Maximum Reverse Recovery Time (I _F = 1.0 Amp, dI/dt = 50 Amp/μs, V _R = 30 V T _J = 25°C)	t _{rr}	50	ns



Quality Semi-Conductors