

20 STERN AVE.
 SPRINGFIELD, NEW JERSEY 07081
 U.S.A.

MUR405 MUR430
MUR410 MUR440
MUR415 MUR450
MUR420 MUR460

TELEPHONE: (973) 376-2922
 (212) 227-6005
 FAX: (973) 376-8960



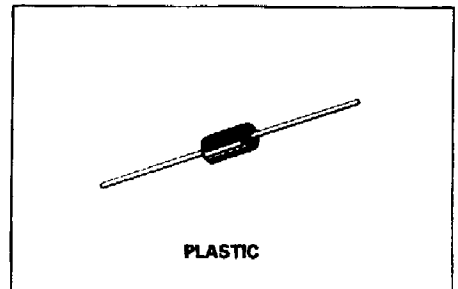
SWITCHMODE POWER RECTIFIERS

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

- Ultrafast 25, 50 and 75 Nanosecond Recovery Times
- 175°C Operating Junction Temperature
- Low Forward Voltage
- Low Leakage Current
- High Temperature Glass Passivated Junction
- Reverse Voltage to 600 Volts

**ULTRAFAST
 RECTIFIERS**

**4.0 AMPERES
 50-600 VOLTS**



MAXIMUM RATINGS

Rating	Symbol	MUR								Unit
		405	410	415	420	430	440	450	460	
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_R	50	100	150	200	300	400	500	600	Volts
Average Rectified Forward Current (Square Wave) (Mounting Method #3 Per Note 1)	$I_{F(AV)}$	4.0 @ $T_A = 80^\circ\text{C}$				4.0 @ $T_A = 40^\circ\text{C}$				Amps
Nonrepetitive Peak Surge Current (Surge applied at rated load conditions halfwave, single phase, 60 Hz)	I_{FSM}	125				70				Amps
Operating Junction Temperature and Storage Temperature	T_J, T_{stg}	-65 to +175								°C

THERMAL CHARACTERISTICS

Maximum Thermal Resistance, Junction to Ambient	$R_{\theta JA}$	See Note 1	°C/W
---	-----------------	------------	------

ELECTRICAL CHARACTERISTICS

Maximum Instantaneous Forward Voltage (1) ($I_F = 3.0$ Amp, $T_J = 150^\circ\text{C}$) ($I_F = 3.0$ Amp, $T_J = 25^\circ\text{C}$) ($I_F = 4.0$ Amp, $T_J = 25^\circ\text{C}$)	V_F	0.710 0.875 0.890	1.05 1.25 1.28	Volts
Maximum Instantaneous Reverse Current (1) (Rated dc Voltage, $T_J = 150^\circ\text{C}$) (Rated dc Voltage, $T_J = 25^\circ\text{C}$)	I_R	150 5.0	250 10	μA
Maximum Reverse Recovery Time ($I_F = 1.0$ Amp, $di/dt = 50$ Amp/μs) ($I_F = 0.5$ Amp, $I_R = 1.0$ Amp, $I_{REC} = 0.25$ Amp)	t_{rr}	35 25	75 50	ns
Maximum Forward Recovery Time ($I_F = 1.0$ A, $di/dt = 100$ A/μs, Recovery to 1.0 V)	t_{fr}	25	50	ns

(1) Pulse Test: Pulse Width = 300 μs, Duty Cycle ≤ 2.0%

