

MUR805, MUR810, MUR815, MUR820, MUR840, MUR860

SWITCHMODE™ Power Rectifiers

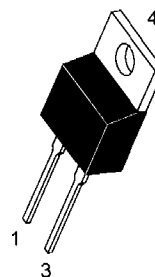
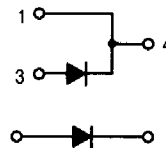
... designed for use in switching power supplies, inverters and as free wheeling diodes, these state-of-the-art devices have the following features:

- Ultrafast 25, 50 and 75 Nanosecond Recovery Time
- 175°C Operating Junction Temperature
- Popular TO-220 Package
- Epoxy Meets UL94, V₀ @ 1/8"
- Low Forward Voltage
- Low Leakage Current
- High Temperature Glass Passivated Junction
- Reverse Voltage to 600 Volts

Mechanical Characteristics:

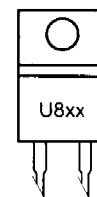
- Case: Epoxy, Molded
- Weight: 1.9 grams (approximately)
- Finish: All External Surfaces Corrosion Resistant and Terminal Leads are Readily Solderable
- Lead Temperature for Soldering Purposes:
260°C Max. for 10 Seconds
- Shipped 50 units per plastic tube
- Marking: U805, U810, U815, U820, U840, U860

ULTRAFAST RECTIFIERS 8.0 AMPERES 50-600 VOLTS

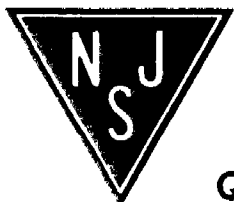


TO-220AC
PLASTIC

MARKING DIAGRAM



U8xx = Device Code
xx = 05, 10, 15,
20, 40 or 60



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

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MAXIMUM RATINGS

Rating	Symbol	MUR						Unit
		805	810	815	820	840	860	
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_R	50	100	150	200	400	600	Volts
Average Rectified Forward Current Total Device, (Rated V_R), $T_C = 150^\circ\text{C}$	$I_{F(AV)}$	8.0						Amps
Peak Repetitive Forward Current (Rated V_R , Square Wave, 20 kHz), $T_C = 150^\circ\text{C}$	I_{FM}	16						Amps
Nonrepetitive Peak Surge Current (Surge applied at rated load conditions halfwave, single phase, 60 Hz)	I_{FSM}	100						Amps
Operating Junction Temperature and Storage Temperature Range	T_J, T_{stg}	-65 to +175						$^\circ\text{C}$

THERMAL CHARACTERISTICS

Maximum Thermal Resistance, Junction to Case	$R_{\theta JC}$	3.0	2.0	$^\circ\text{C/W}$
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ELECTRICAL CHARACTERISTICS

Maximum Instantaneous Forward Voltage (Note 1.) ($i_F = 8.0$ Amps, $T_C = 150^\circ\text{C}$) ($i_F = 8.0$ Amps, $T_C = 25^\circ\text{C}$)	V_F	0.895 0.975	1.00 1.30	1.20 1.50	Volts
Maximum Instantaneous Reverse Current (Note 1.) (Rated dc Voltage, $T_J = 150^\circ\text{C}$) (Rated dc Voltage, $T_J = 25^\circ\text{C}$)	i_R	250 5.0	500 10		μA
Maximum Reverse Recovery Time ($I_F = 1.0$ Amp, $di/dt = 50$ Amps/ μs) ($I_F = 0.5$ Amp, $i_R = 1.0$ Amp, $I_{REC} = 0.25$ Amp)	t_{rr}	35 25	60 50		ns

1. Pulse Test: Pulse Width = 300 μs , Duty Cycle $\leq 2.0\%$.