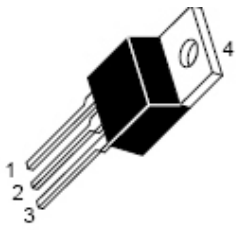
Rsirocco Electronics

MUR1620CT
MUR1640CT
MUR1660CT

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:

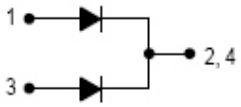
- Ultrafast 35 and 60 Nanosecond Recovery Times
- 175°C Operating Junction Temperature
- Popular TO–220 Package
- Epoxy Meets UL94, V_O @ 1/8″
- High Temperature Glass Passivated Junction
- High Voltage Capability to 600 Volts
- Low Leakage Specified @ 150°C Case Temperature
- Current Derating @ Both Case and Ambient Temperatures



CASE 221A–06
TO–220AB

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: U1620, U1640, U1660



MAXIMUM RATINGS

Rating		Symbol	MUR 1620CT	MUR 1640CT	MUR 1660CT	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage		V_{RRM} V_{RWM} V_R	200	400	600	Volts
Average Rectified Forward Current Total Device, (Rated V_R), T_C = 150°C	Per Leg Total Device	$I_{F(AV)}$	8.0 16			Amps
Peak Rectified Forward Current (Rated V_R, Square Wave, 20 kHz), T_C = 150°C	Per Diode Leg	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		T_J, T_{stg}	– 65 to +175			°C

THERMAL CHARACTERISTICS, PER DIODE LEG

Maximum Thermal Resistance, Junction to Case		$R_{\theta JC}$	3.0	2.0		°C/W

ELECTRICAL CHARACTERISTICS, PER DIODE LEG

Maximum Instantaneous Forward Voltage (1) (i_F = 8.0 Amps, T_C = 150°C) (i_F = 8.0 Amps, T_C = 25°C)		v_F	0.895 0.975	1.00 1.30	1.20 1.50	Volts
Maximum Instantaneous Reverse Current (1) (Rated dc Voltage, T_C = 150°C) (Rated dc Voltage, T_C = 25°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 ≤ 2.0%