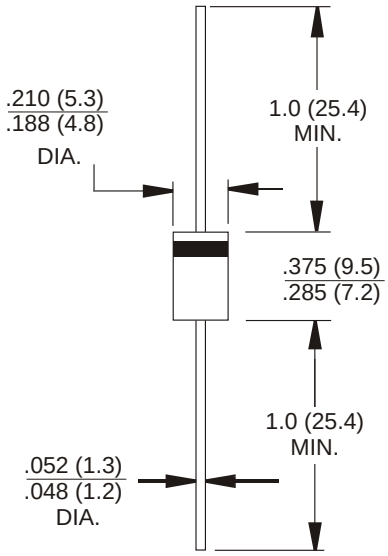
YEA SHIN TECHNOLOGY CO., LTD

MUR405 THRU MUR460

Ultra Fast Recovery Rectifer

VOLTAGE- 50 to 600 Volts CURRENT - 4.0 Amperes

DO-201AD Unit:inch(mm)



Features

- Ultrafast 50 Nanosecond Recovery Times
- 150°C Operating Junction Temperature
- Low Forward Voltage
- Low Leakage Current
- High Temperature Glass Passivated Junction
- Reverse Voltage to 600 Volts
- High temperature soldering : 260^{O}C / 10 seconds at terminals
- Pb free product at available : 99% Sn above meet RoHS environment substance directive request

Mechanical Characteristics

- Case: Epoxy, Molded
- Weight: 1.1 gram (approximately)
- Finish: All External Surfaces Corrosion Resistant and Terminal Leads are Readily Solderable
- Lead and Mounting Surface Temperature for Soldering Purposes: 220°C Max. for 10 Seconds
- Polarity: Cathode indicated by Polarity Band
- Marking: MUR405, MUR410, MUR415, MUR420, MUR440,MUR460

MAXIMUM RATINGS

Rating	Symbol	MUR						Unit
		405	410	415	420	440	460	
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 (Square Wave)	$I_{F(AV)}$	4.0						Amps
Nonrepetitive Peak Surge Current (Surge applied at rated load conditions, half wave, single phase , 60 Hz)	I_{FSM}	150						Amps
Operating Junction Temperature & Storage Temperature	T_J, T_{stg}	-55 to +150						°C

ELECTRICAL CHARACTERISTICS

				Unit
Maximum Instantaneous Forward Voltage (Note 1) (I_F = 4.0 Amps, T_J = 25°C)	VF	1.0	1.3	Volts
Maximum Instantaneous Reverse Current (Note 1) (Rated dc Voltage, T_J = 25°C) (Rated dc Voltage, T_J = 150°C)	IR	10 150	10 250	µA
Maximum Reverse Recovery Time (I_F = 0.5 Amp, i_R = 1.0 Amp, Irr = 0.25 Amp)	trr	50		ns
Maximum Forward Recovery Time (I_F = 1.0 A, di/dt =100A/us, Recovery to 1.0 V)	tfr	25	50	ns

1. Pulse Test: Pulse Width = 300 us, Duty Cycle ≤2.0%.

DEVICE CHARACTERISTICS

MUR405 THRU MUR460

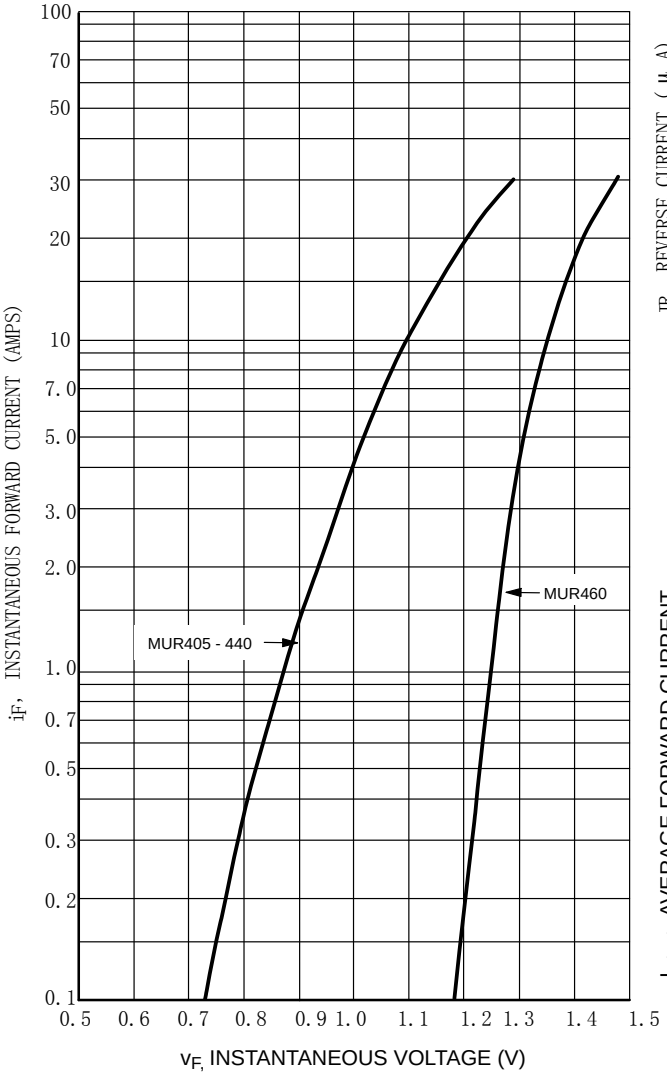


Figure 1. Typical Forward Voltage

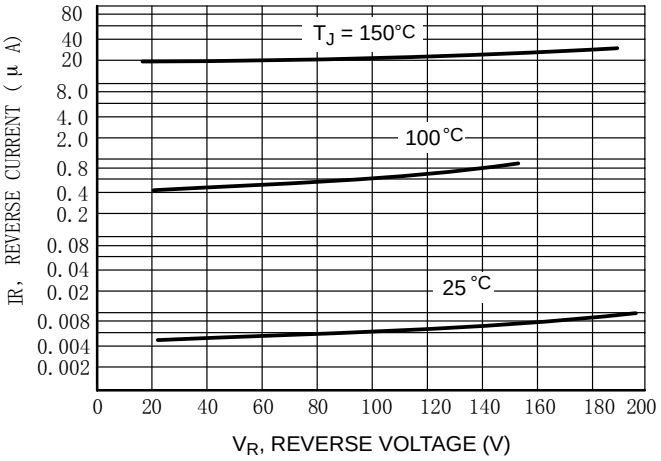


Figure 2. Typical Reverse Current

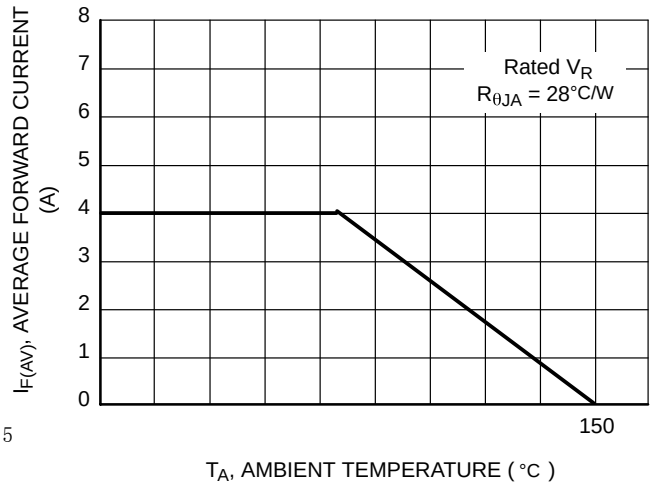


Figure 3. Current Derating
(Mounting Method #3)

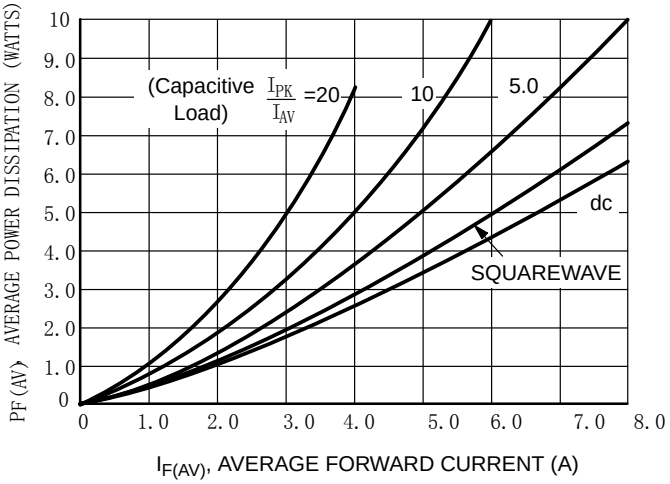


Figure 4. Power Dissipation

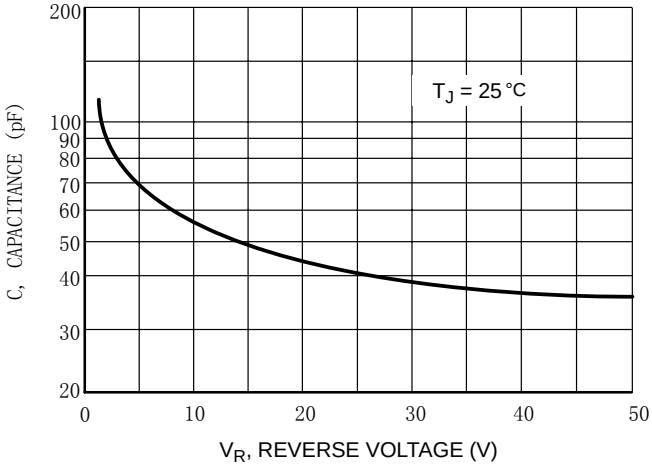


Figure 5. Typical Capacitance