

Super Fast Recovery Rectifier



Features:

- High surge capability
- Low leakage
- Low forward voltage drop
- Ultra fast switching speed for high efficiency
- Reverse voltage: 200 to 600 Volts
- Forward current: 4 Amperes

Maximum Ratings and Electrical Characteristics:

Rating at 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 60Hz, resistive or inductive load.

For capacitive load, derate current by 20%.

Type Number	Symbol	MUR420	MUR440	MUR460	Units
Max. Recurrent Peak Reverse Voltage	V_{RRM}	200	400	600	V
Max. RMS Voltage	V_{RMS}	140	280	420	
Max. DC Blocking Voltage	V_{DC}	200	400	600	
Max. Average Forward Rectified Current @ $T_A = 55^\circ C$	$I_{(AV)}$	4			A
Peak Forward Surge Current, 8.3ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I_{FSM}	150			
Max Instantaneous Forward Voltage $I_{FM} = 4A @ T_A = 25^\circ C$ (Note 3)	V_F	1.35			V
Max. DC Reverse Current at $T_A = 25^\circ C$ Rated DC Blocking Voltage at $T_A = 125^\circ C$	I_R	10 50			μA μA
Max. Reverse Recovery Time (Note 1)	T_{RR}	60			nS
Typical Junction Capacitance (Note 2)	C_J	80			pF
Typical Thermal Resistance	$R_{\theta JA}$	20			$^\circ C/W$
Operating Temperature Range	T_J	-55 to +150			$^\circ C$
Storage Temperature Range	T_{STG}				

Notes:

1. Measured with $I_F = 0.5A$, $I_R = 1A$, $I_{RR} = 0.25A$
2. Measured at 1.0 MHz and applied reverse voltage of 4.0V DC
3. Pulse test: Pulse width 300 μ sec, Duty cycle 1%
4. The typical data above is for reference only

Ratings and Characteristic Curves

FIG. 1 – FORWARD CURRENT DERATING CURVE

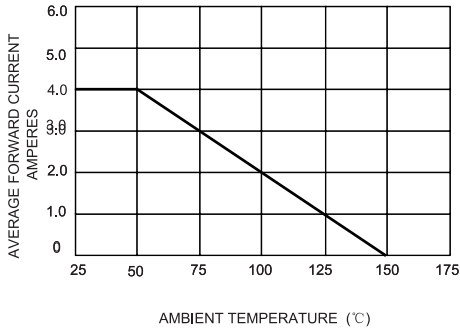


FIG.2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

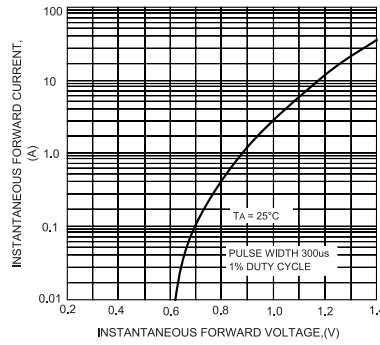
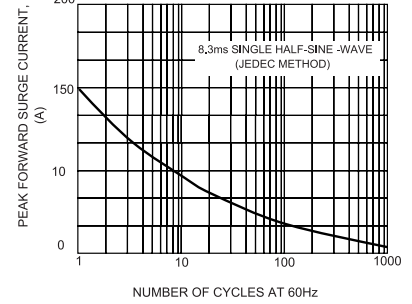
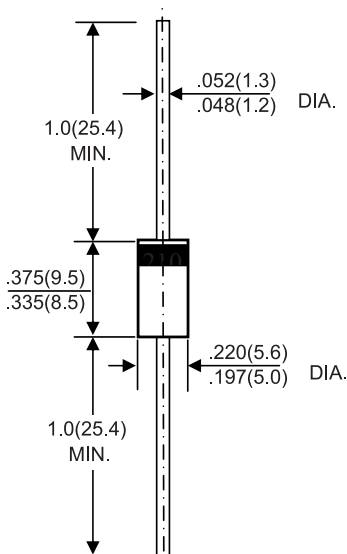


FIG. 3 – MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT



Dimensions:

DO- 27



Part Number Table

Description	Part Number
Diode, Fast, 4A, 200V	MUR420
Diode, Fast, 4A, 400V	MUR440
Diode, Fast, 4A, 600V	MUR460

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