



# MUR420 THRU MUR460

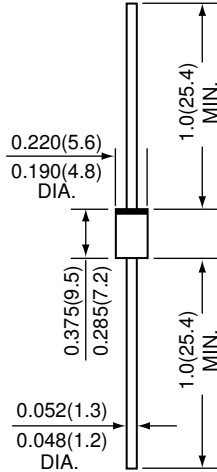
## SINTERED GLASS PASSIVATED ULTRA FAST RECTIFIER

*Reverse Voltage - 200 to 600 Volts*

*Forward Current - 4.0 Amperes*

**PATENTED**

DO-201AD



\*Dimensions in inches and (millimeters)

**SUPEREX II**<sup>TM</sup>



### FEATURES

- \* GPRC (Glass Passivated Rectifier Chip) inside
- \* Designed for use in switching power supplies, inverters and as free wheeling diodes.
- \* These state-of-the-art devices have the following
- \* Ultrafast 25, 50 and 75 nanosecond recovery time
- \* 175 °C operating junction temperature
- \* Low forward voltage
- \* Low leakage current
- \* High temperature glass passivated junction
- \* Reverse voltage to 1000 volts
- \* Plastic package has Underwriters Laboratory Flammability Classification 94V-0

### MECHANICAL DATA

**Case :** JEDEC DO-201AD molded plastic over glass body

**Terminals :** Tin Plated, solderable per MIL-STD-750, Method 2026

**Polarity :** Color band denotes cathode end

**Weight :** 0.04 ounces , 1.12 grams

## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

<i>Ratings at 25 °C ambient temperature unless otherwise specified.</i>	SYMBOLS	<b>MUR420</b>	<b>MUR460</b>	UNITS
Maximum repetitive peak reverse voltage	VRRM	200	600	Volts
Maximum RMS voltage	VRMS	140	420	Volts
Maximum DC blocking voltage	VDC	200	600	Volts
Maximum average forward rectified current 0.375" (9.5mm) lead length (SEE FIG.1)	I (AV)	4.0		Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	IFSM	150		Amps
Maximum instantaneous forward voltage at 4.0 A	VF	1.28		Volts
Maximum DC reverse current at rated DC blocking voltage <span style="float: right;">TA=25°C TA=150°C</span>	IR	10 250		uA
Maximum reverse recovery time (NOTE 1)	trr	50		nS
Typical junction capacitance (NOTE 2)	CJ	75		pF
Typical thermal resistance (NOTE 3)	RθJA	75		°C / W
Operating junction and storage temperature range	TJ,TSTG	-65 to +175		°C

NOTES : (1) Reverse recovery test condition : IF 0.5A, IR=1.0A, Irr=0.25A  
 (2) Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts  
 (3) Thermal resistance from junction to ambient at 0.375" (9.5mm) lead lengths, P.C.B. mounted.

# RATINGS AND CHARACTERISTIC CURVES MUR420 THRU MUR460

FIG.1 - FORWARD CURRENT DERATING CURVE

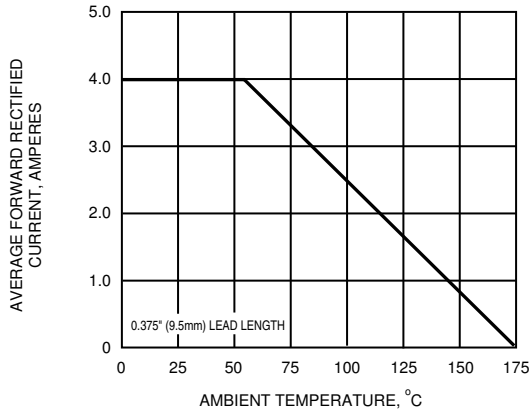


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

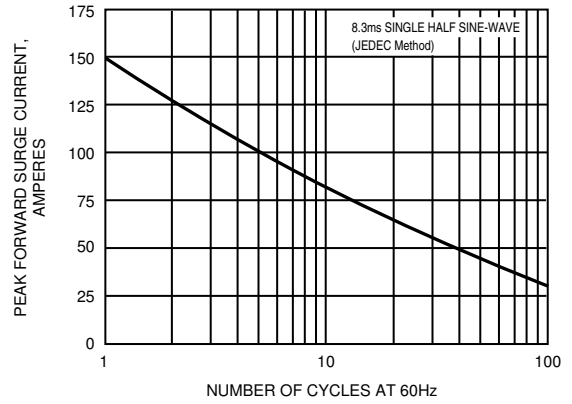


FIG.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

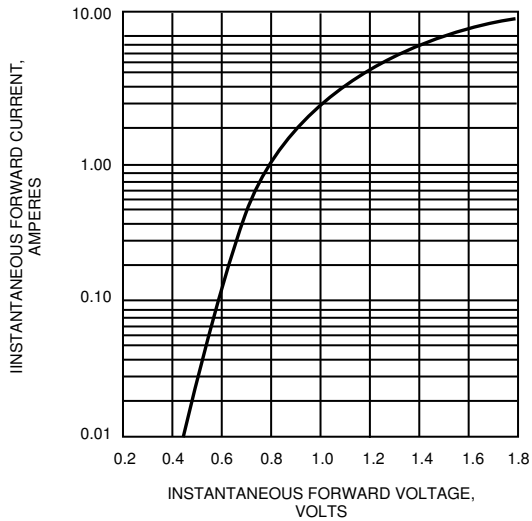


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

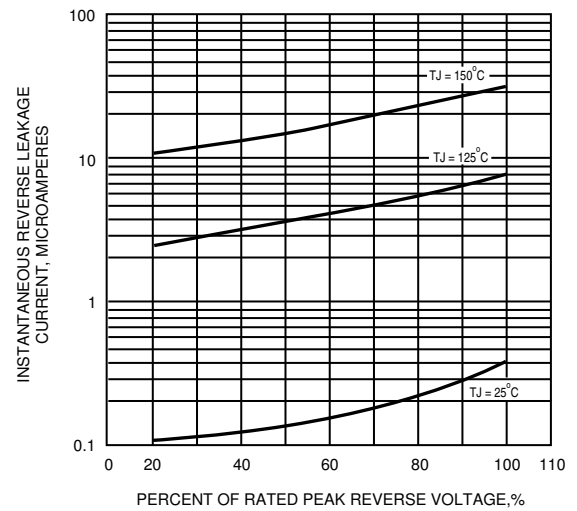


FIG.5 - TYPICAL JUNCTION CAPACITANCE

