



## MUR440AX ULTRAFAST RECTIFIERS

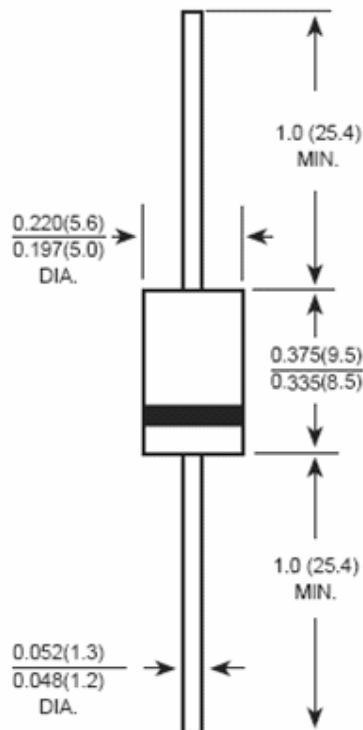
### Applications:

- Switching Power Supply
- Power Switching Circuits
- General Purpose

### Features:

- Glass Passivated Die Construction
- Ideally Suited for Automatic Assembly
- Low Forward Voltage Drop, High Efficiency
- Low Power Loss
- Super Fast Recovery Time
- Plastic Case Material has UL Flammability Classification Rating 94V-0
- This is a Pb – Free Device
- All SMC parts are traceable to the wafer lot
- Additional testing can be offered upon request

### Mechanical Dimensions: In Inches / mm

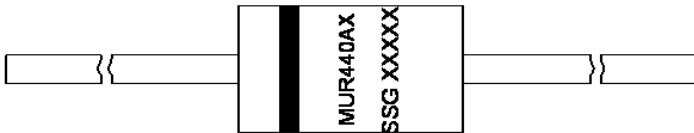


DO-201AD



**Marking Diagram:**

Where XXXXX is YYWWL



MUR = Device Type  
4 = Forward Current (4A)  
40 = Reverse Voltage (400V)  
AX = Configuration  
SSG = SSG  
YY = Year  
WW = Week  
L = Lot Number

**Cautions :** Molding resin  
Epoxy resin UL:94V-0

**Ordering Information:**

Device	Package	Shipping
MUR440AX	DO-201AD (Pb-Free)	1250pcs / tape

For information on tape and reel specifications, including part orientation and tape sizes, please refer to our Tape and Reel Packaging Specification.

**Maximum Ratings:**

Characteristics	Symbol	Condition	Max.	Units
Repetitive Peak Inverse Voltage	$V_{RWM}$	-	400	V
Max. Average Forward Current	$I_{F(AV)}$	50% duty cycle @TC =105°C rectangular wave form	4.0	A
Max. One Cycle Non-Repetitive Surge Forward Current	$I_{FSM}$	50Hz Half Sine Wave	125	A



**Electrical Characteristics:**

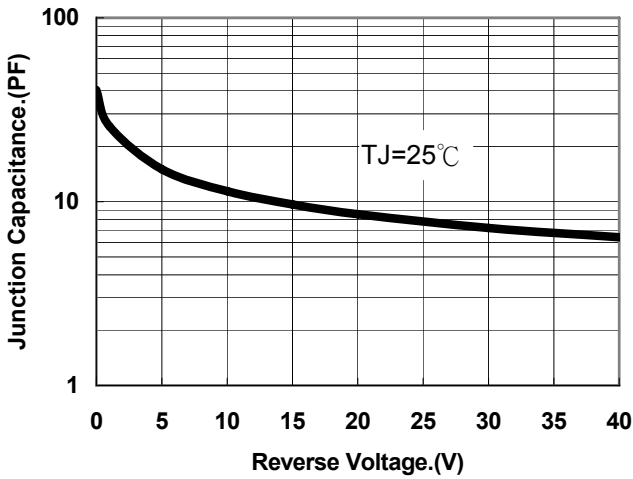
Characteristics	Symbol	Condition	Max.	Units
Max. Forward Voltage Drop*	$V_F$	@ $I_F=4A$ , Pulse, $T_J = 25\text{ }^\circ\text{C}$	1.3	V
Max. Reverse Current*	$I_{R1}$	@ $V_R = \text{rated VR}$ $T_J = 25\text{ }^\circ\text{C}$	5	$\mu\text{A}$
	$I_{R2}$	@ $V_R = \text{rated VR}$ $T_J = 100\text{ }^\circ\text{C}$	500	$\mu\text{A}$
Max. Junction Capacitance	$C_T$	@ $V_R = 5V$ , $T_C = 25\text{ }^\circ\text{C}$ $f_{SIG} = 1\text{MHz}$	80	pF
Max. Reverse Recovery Time	$t_{rr}$	$I_F=0.5A$ , $I_R=1A$ , and $I_{RR}=0.25A$	35	ns

\* Pulse width < 300  $\mu\text{s}$ , duty cycle < 2%

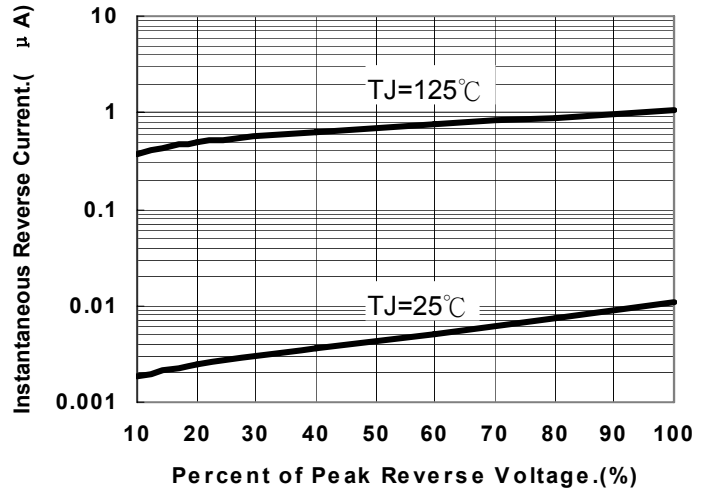
**Thermal-Mechanical Specifications:**

Characteristics	Symbol	Condition	Specification	Units
Max. Junction Temperature	$T_J$	-	-55 to +150	$^\circ\text{C}$
Max. Storage Temperature	$T_{stg}$	-	-55 to +150	$^\circ\text{C}$
Maximum Thermal Resistance Junction to Case	$R_{\theta JC}$	DC operation	8	$^\circ\text{C/W}$
	wt	-	1.02	g
Case Style	DO-201AD			

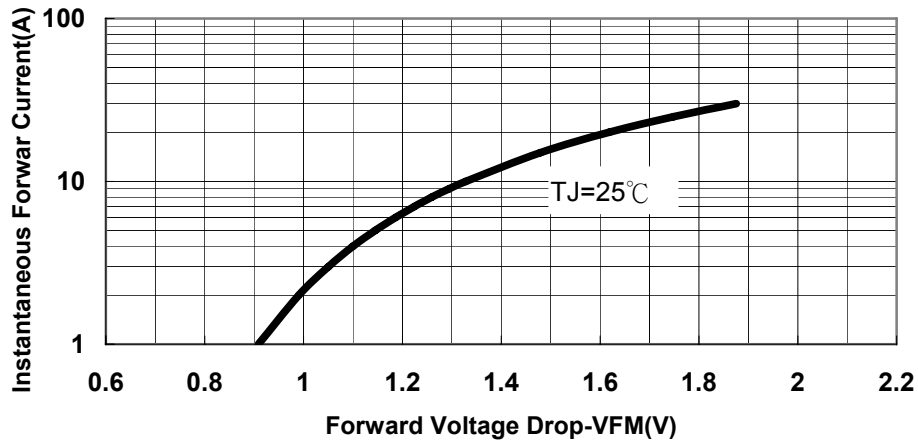
\*1 Alumina Substrate Mounted (Soldering Lands=2x3.5mm, Both Sides)



**Fig.1-Typical Junction Capacitance**



**Fig.2-Typical Reverse Characteristics**



**Fig.3-Typical Instantaneous Forward Voltage Characteristics**



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