



SUR460AX ULTRAFAST RECTIFIERS

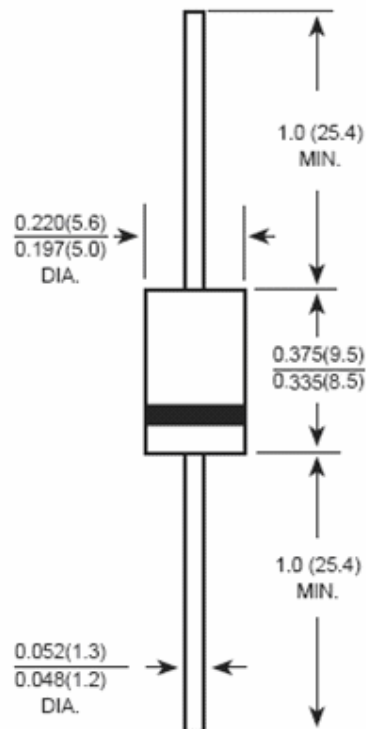
Applications:

- Antiparallel diode for high frequency switching devices
- Anti saturation diode
- Snubber diode
- Free wheeling diode in converters and motor control circuits
- Rectifiers in switch mode power supplies (SMPS)
- Inductive heating and melting
- Uninterruptible power supplies (UPS)
- Ultrasonic cleaners and welders

Features:

- Low Forward Voltage Drop
- High current capability
- High reliability
- High Surge Current Capability
- 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

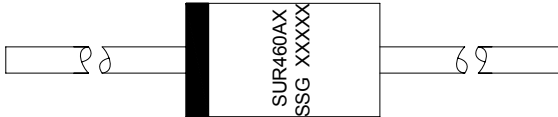


DO-201AD



Marking Diagram:

W here XXXXX is YYWWL



- SUR = Device Type
- 4 = Forward Current (4A)
- 60 = Reverse Voltage (600V)
- AX = Configuration
- SSG = SSG
- YY = Year
- WW = Week
- L = Lot Number

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

Ordering Information:

Device	Package	Shipping
SUR460AX	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 and Electrical Characteristics @T_A=25°C unless otherwise specified

Single Phase, half wave, 60Hz, resistive or inductive load.
For capacitive load, derate current by 20%.

Characteristic Sy	mbol	SUR460AX	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V _{RRM} V _{RWM} V _R	600 V	
RMS Reverse Voltage	V _{R(RMS)} 420		V
Average Rectified Output Current @T _A = 55°C	I _o	4.0	A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I _{FSM} 1	10	A
Forward Voltage (per element) @I _F = 4.0A	V _{FM} 1.	5	V
Peak Reverse Current @T _A = 25°C At Rated DC Blocking Voltage @T _A = 100°C	I _R	5.0 250	μA
Maximum Reverse Recovery Time (Note 1)	T _{rr}	50	ns
Typical Junction Capacitance (Note 2)	C _J 80		pF
Max. Voltage Rate of Change	dv/dt	10,000	V/μs
Typical Thermal Resistance Junction to Ambient (Note 3)	R _{θJA} 25		K/W
Storage Temperature Range Storage Temperature	T _J , T _{STG}	-55 to +150	°C
Approximate Weight	wt	1.02	g
Case Style	DO-201AD		

- Note: 1. Reverse Recovery Test Conditions: I_F=0.5A, I_R=1.0A, I_{RR}=0.25A
2. Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C.
3. Mount on Cu-Pad Size 16mm×16mm on P.C.B.

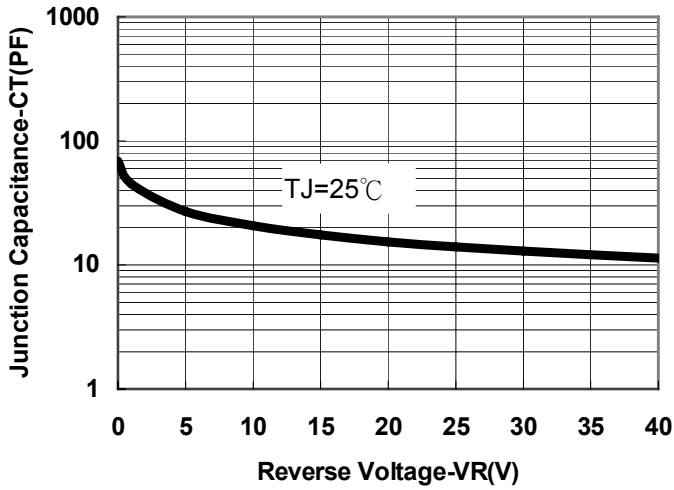


Fig.1-Typical Junction Capacitance

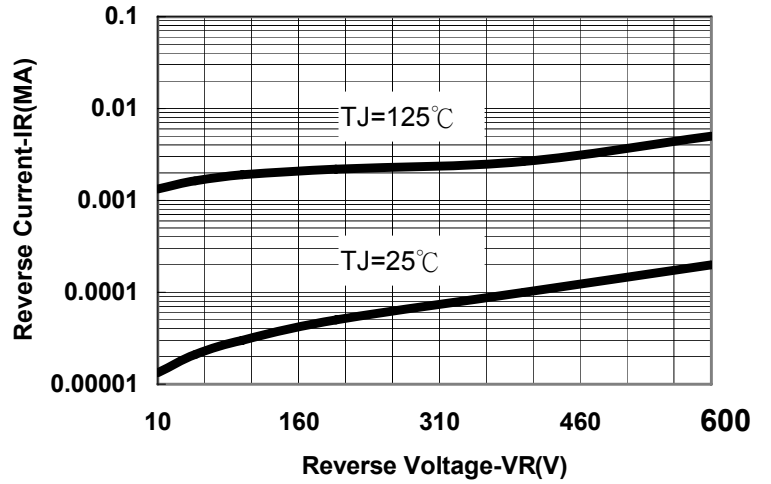


Fig.2-Typical Reverse Characteristics

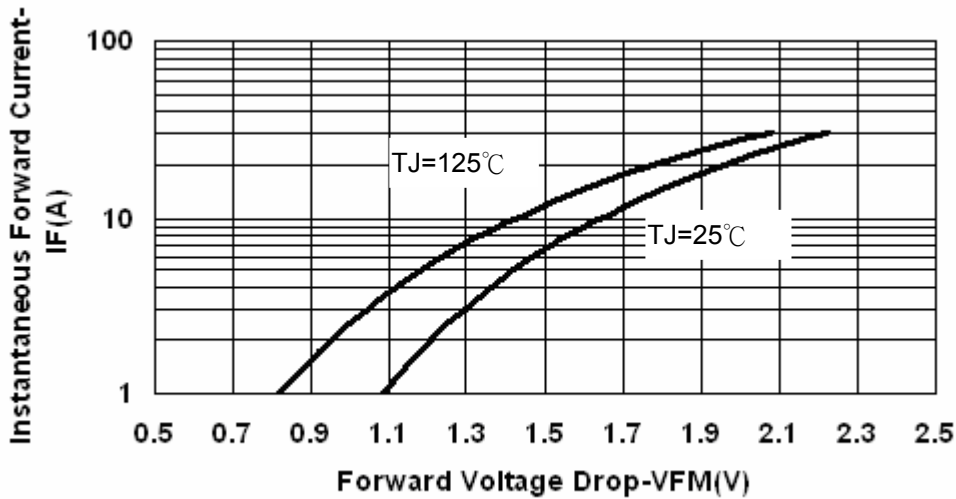


Fig.3-Typical Instantaneous Forward Voltage Characteristics



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