

**VOLTAGE RANGE: 50 - 600V**

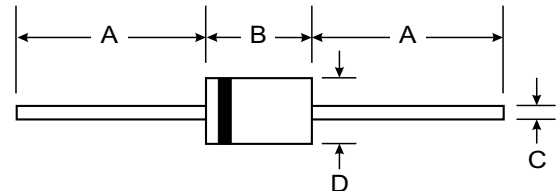
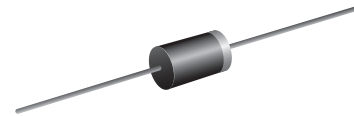
**CURRENT: 4.0 A**

### Features

- Diffused Junction
- Low Forward Voltage Drop
- High Current Capability
- High Reliability
- High Surge Current Capability

### Mechanical Data

- Case: DO-201AD, Molded Plastic
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: Cathode Band
- Weight: 1.2 grams (approx.)
- Mounting Position: Any
- Marking: Type Number



DO-201AD		
Dim	Min	Max
A	25.40	—
B	7.20	9.50
C	1.20	1.30
D	4.80	5.30
All Dimensions in mm		

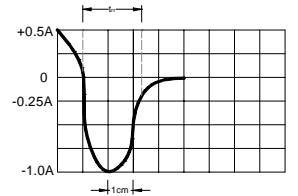
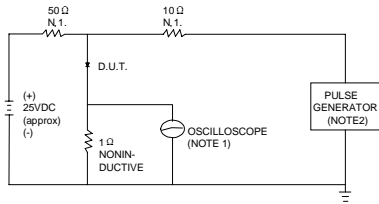
### Maximum Ratings and Electrical Characteristics T<sub>A</sub> = 25°C unless otherwise specified

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

Characteristic	Symbol	MUR405	MUR410	MUR415	MUR420	MUR430	MUR440	MUR450	MUR460	Unit
Maximum recurrent peak reverse voltage	V <sub>RRM</sub>	50	100	150	200	300	400	500	600	V
Maximum RMS voltage	V <sub>RMS</sub>	35	70	105	140	210	280	350	420	V
Maximum DC blocking voltage	V <sub>DC</sub>	50	100	150	200	300	400	500	600	V
Maximum average forward rectified current 9.5mm lead length, @T <sub>A</sub> =75°C	I <sub>F(AV)</sub>	4.0								A
Peak forward surge current 8.3ms single half-sine-wave superimposed on rated load @T <sub>J</sub> =125°C	I <sub>FSM</sub>	125.0								A
Maximum instantaneous forward voltage @ 4.0A	V <sub>F</sub>	0.89				1.28				V
Maximum reverse current @T <sub>A</sub> =25°C at rated DC blocking voltage @T <sub>A</sub> =100°C	I <sub>R</sub>	10.0				100.0				μA
Maximum reverse recovery time (Note1)	t <sub>rr</sub>	25				50				ns
Typical junction capacitance (Note2)	C <sub>J</sub>	95								pF
Typical thermal resistance (Note3)	R <sub>θJA</sub>	20								°C/W
Operating junction temperature range	T <sub>J</sub>	- 55 ----- + 150								°C
Storage temperature range	T <sub>STG</sub>	- 55 ----- + 150								°C

NOTE: 1. Measured with I<sub>F</sub>=0.5A, I<sub>R</sub>=1A, I<sub>r</sub>=0.25A.  
 2. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.  
 3. Thermal resistance from junction to ambient.

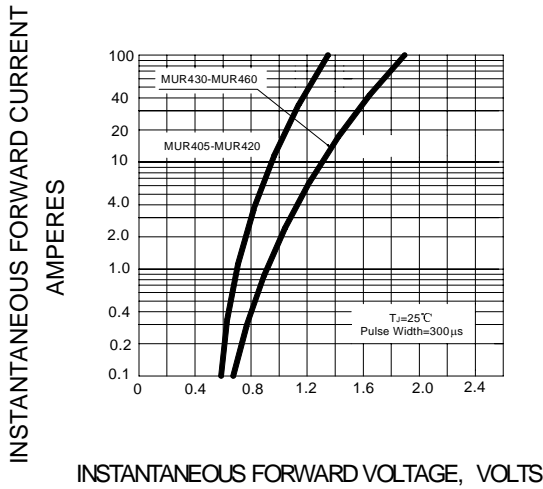
**FIG.1 – TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC**



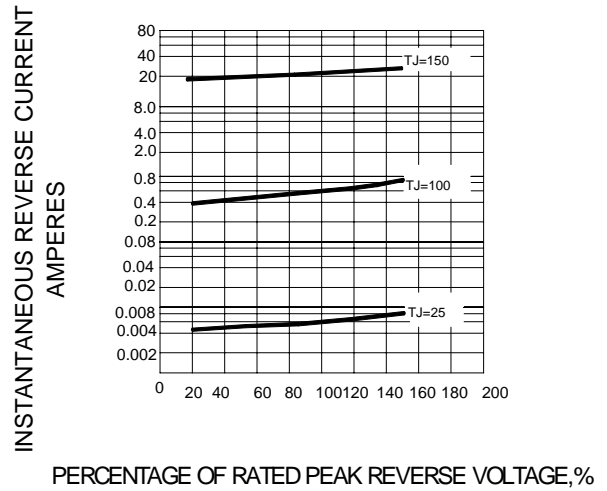
NOTES: 1. RISE TIME = 7ns MAX INPUT IMPEDANCE = 1MΩ, 22pF.  
 2. RISE TIME = 10ns MAX SOURCE IMPEDANCE = 50 Ω.

SET TIME BASE FOR 10/20 ns/cm

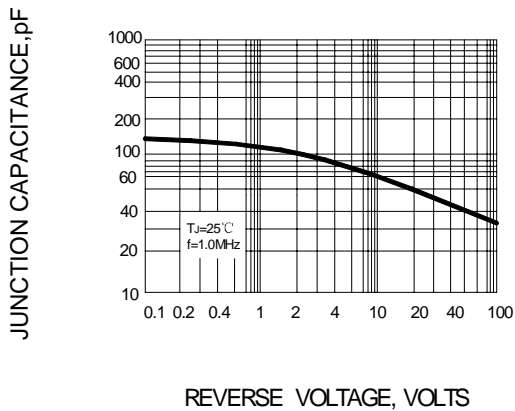
**FIG.2 – TYPICAL FORWARD CHARACTERISTIC**



**FIG.3 – TYPICAL REVERSE CHARACTERISTIC**



**FIG.4 – TYPICAL JUNCTION CAPACITANCE**



**FIG.5 – FORWARD DERATING CURVE**

