

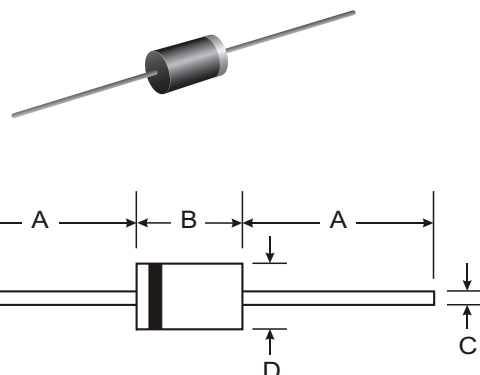
VOLTAGE RANGE: 50 - 600 V
CURRENT: 4.0 A

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	8.50	9.53
C	0.96	1.06
D	4.80	5.21
All Dimensions in mm		

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	Symbol	MUR 405	MUR 410	MUR 415	MUR 420	MUR 430	MUR 440	MUR 450	MUR 460	UNITS
Maximum recurrent peak reverse voltage	V _{RRM}	50	100	150	200	300	400	500	600	V
Maximum RMS voltage	V _{RMS}	35	70	105	140	210	280	350	420	V
Maximum DC blocking voltage	V _{DC}	50	100	150	200	300	400	500	600	V
Maximum average forward rectified current 9.5mm lead length, @T _A =75°C	I _{F(AV)}	4.0								A
Peak forward surge current 8.3ms single half-sine-wave superimposed on rated load @T _J =125°C	I _{FSM}	35.0								A
Maximum instantaneous forward voltage @ 1.0A	V _F	0.875				1.2			1.25	V
Maximum reverse current @T _A =25°C at rated DC blocking voltage @T _A =100°C	I _R	10.0 100.0								μ
Maximum reverse recovery time (Note1)	t _{rr}	25				50				ns
Typical junction capacitance (Note2)	C _J	22								pF
Typical thermal resistance (Note3)	R _{θJA}	50								°C/W
Operating junction temperature range	T _J	- 55 ----- + 150								°C
Storage temperature range	T _{STG}	- 55 ----- + 150								°C

NOTE: 1. Measured with I_F=0.5A, I_R=1A, I_{rr}=0.25A.

2. Measured at 1.0MHz and applied reverse voltage of 4.1V DC.

3. Thermal resistance from junction to ambient.

FIG.1 – TYPICAL FORWARD CHARACTERISTICS

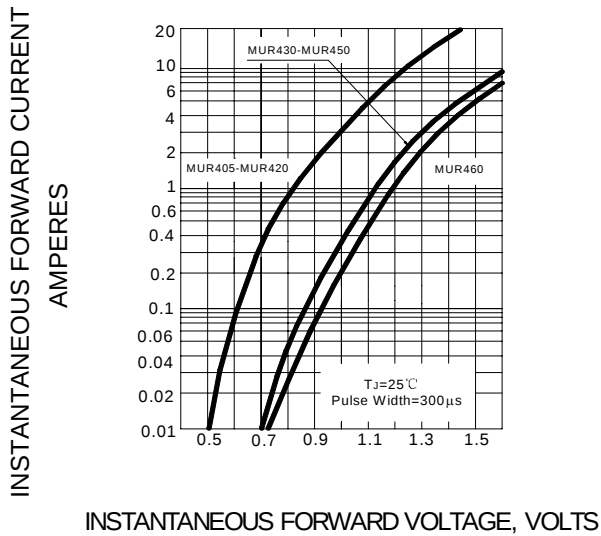


FIG.2 – FORWARD DRATING CURVE

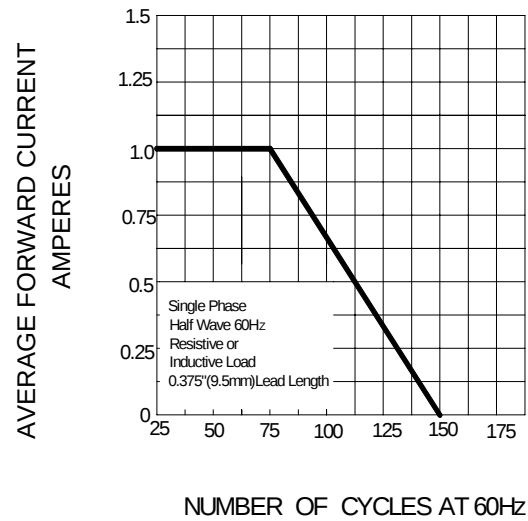


FIG.3 – TYPICAL JUNCTION CAPACITANCE

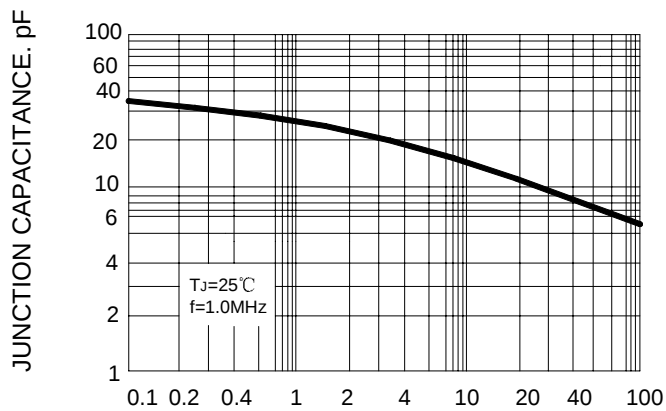


FIG.4 – TYPICAL REVERSE CHARACTERISTICS

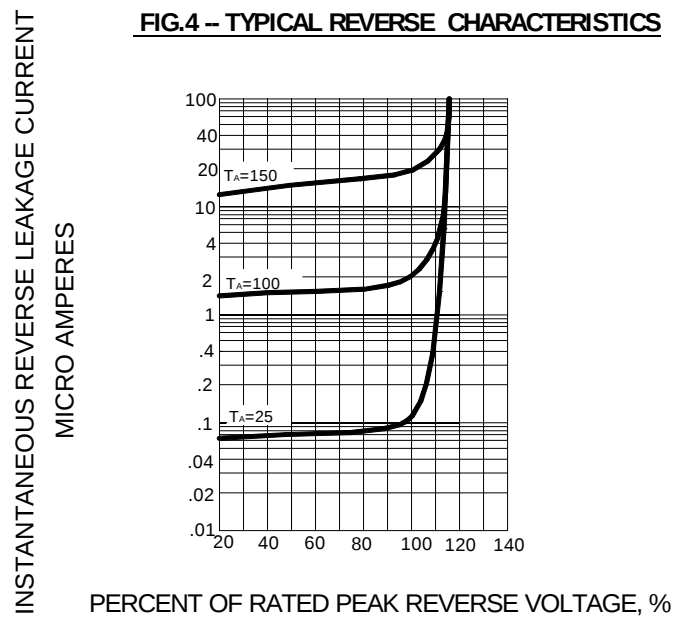


FIG.5 -- PEAK FORWARD SURGE CURRENT

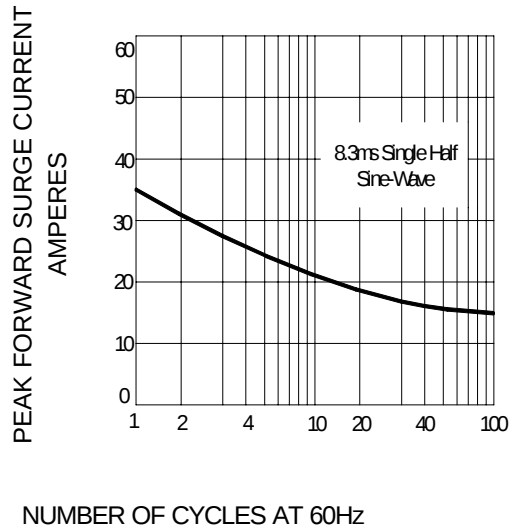
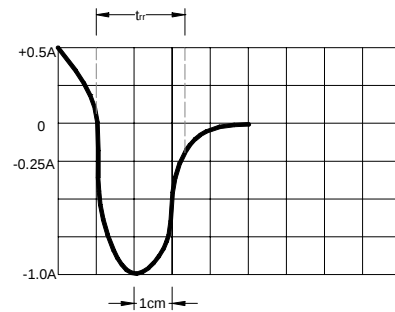
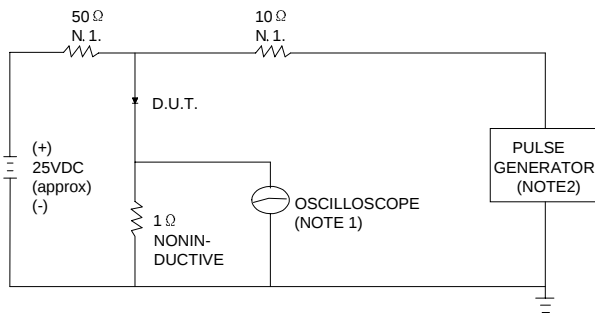


FIG.6 -- TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC



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

SET TIME BASE FOR 10/20 ns/cm