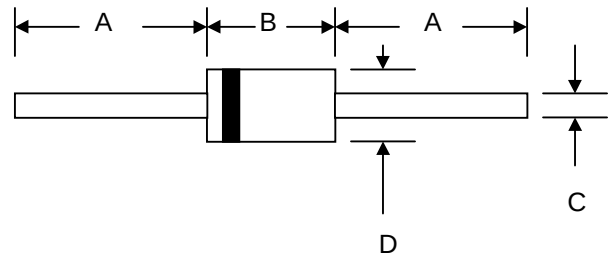


Features

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

Mechanical Data

- Case: Molded Plastic
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: Cathode Band
- Weight: 0.35 grams (approx.)
- Mounting Position: Any
- Marking: Type Number
- **Lead Free: For RoHS / Lead Free Version**



DO-41		
Dim	Min	Max
A	24.5	—
B	4.06	5.21
C	0.60	0.80
D	2.00	3.00
All Dimensions in mm		

Option: diameter C of terminals 0.55 mm

Maximum Ratings and Electrical Characteristics @ $T_A=25^\circ\text{C}$ unless otherwise specified

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

Characteristic	Symbol	1N4001	1N4002	1N4003	1N4004	1N4005	1N4006	1N4007	Unit
Peak Repetitive Reverse Voltage	V_{RRM}								V
Working Peak Reverse Voltage	V_{RWM}	50	100	200	400	600	800	1000	
DC Blocking Voltage	V_R								
RMS Reverse Voltage	$V_{R(RMS)}$	35	70	140	280	420	560	700	V
Average Rectified Output Current (Note 1)	I_O	1.0							A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	30							A
Forward Voltage @ $I_F = 1.0\text{A}$	V_{FM}	1.0							V
Peak Reverse Current @ $T_A = 25^\circ\text{C}$ At Rated DC Blocking Voltage @ $T_A = 100^\circ\text{C}$	I_{RM}	5.0 50							μA
Typical Junction Capacitance (Note 2)	C_j	15							pF
Typical Thermal Resistance Junction to Ambient (Note 1)	R_{JA}	50							K/W
Operating Temperature Range	T_J	-65 to +150							$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-65 to +150							$^\circ\text{C}$

*Glass passivated forms are available upon request

- Note: 1. Leads maintained at ambient temperature at a distance of 9.5mm from the case
2. Measured at 1.0 MHz and Applied Reverse Voltage of 4.0V D.C.

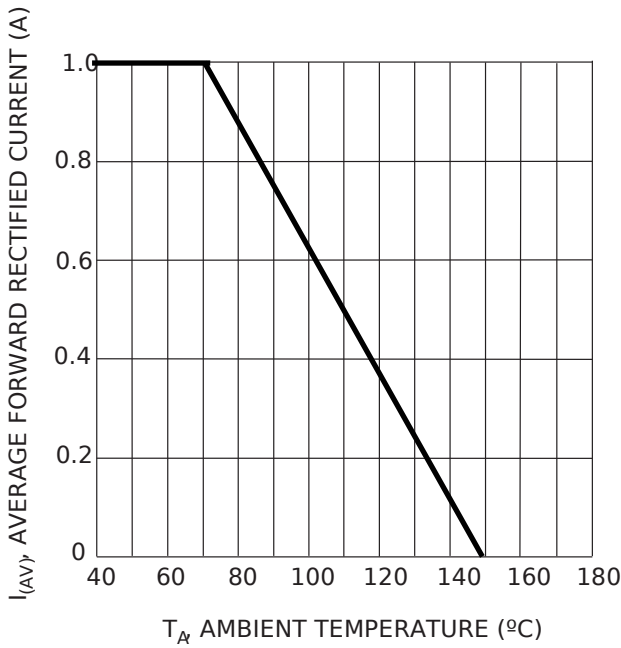


Fig. 1 Forward Current Derating Curve

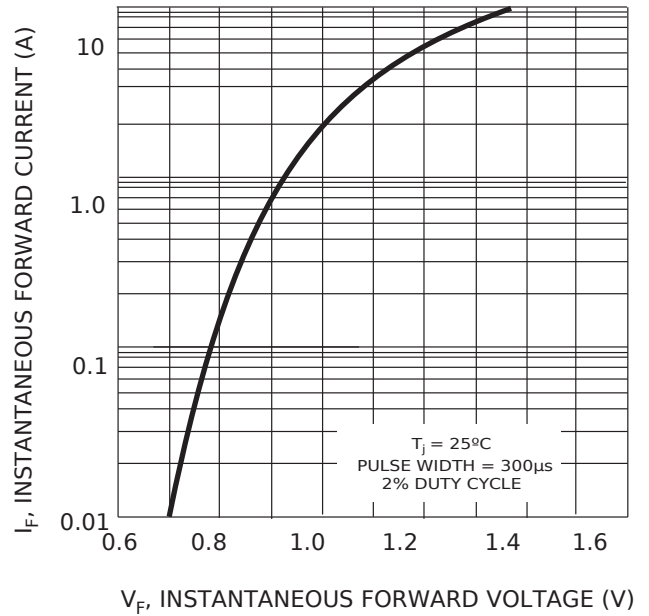


Fig. 2 Typical Forward Characteristics

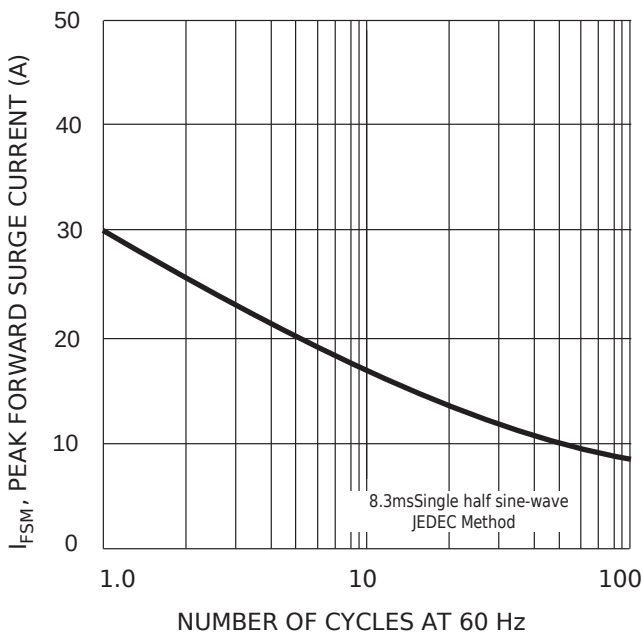


Fig. 3 Max Non-Repetitive Peak Fwd Surge Current

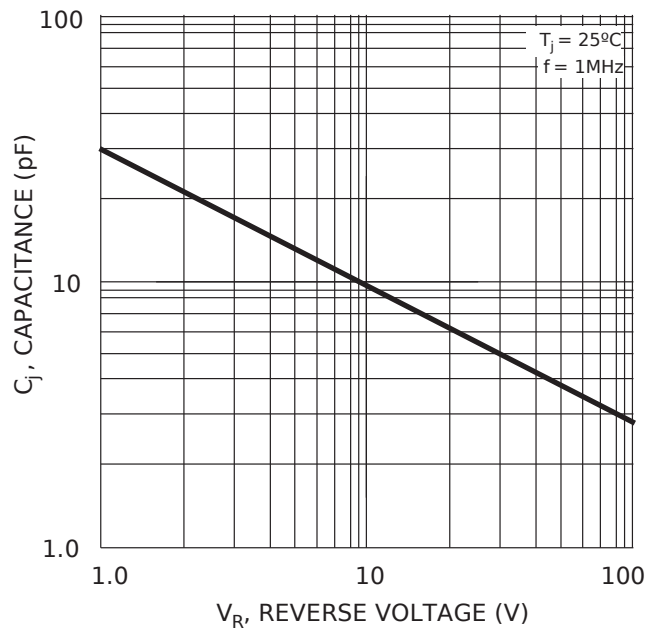


Fig. 4 Typical Junction Capacitance