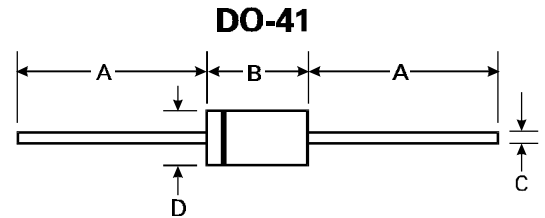


Features

- Low leakage and forward voltage drop
- High current capability
- Capable of meeting the environmental tests in MIL-STD-750C
- Plastic package has Underwriters Lab flammability Classification 94V-0
- High Reliability



Mechanical Data

- CASE: Molded Plastic
- TERMINALS: Plated axial leads solderable per MIL-STD-202, Method 208
- POLARITY: Color band denotes cathode
- WEIGHT: 0.3 grams
- MOUNTING POSITION: Any

	Min	Max
A	25.4	—
B	4.1	5.2
C	0.71	0.86
D	2.0	2.7
All dimensions in mm		

Maximum Ratings and Electrical Characteristics @ TA = 25°C unless otherwise specified

Characteristic	Symbol	1N4001	1N4002	1N4003	1N4004	1N4005	1N4006	1N4007	Unit
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	V_{RMS}	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V_{DC}	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current at $T_A = 75^\circ\text{C}$ (Note 3)	$I_{(AV)}$	1.0							A
Peak Forward Surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	30							A
Maximum Forward Voltage at $I_F = 1\text{ A}$	V_F	1.1							V
Maximum DC Reverse Current at Rated DC Blocking Voltage $T_A = 25^\circ\text{C}$ $T_A = 105^\circ\text{C}$	I_R	5.0 50							μA
Typical Thermal Resistance (Note 1)	$R_{\theta JA}$	45							$^\circ\text{C/W}$
Typical Junction Capacitance (Note 2)	C_J	15							pF
Storage and Operating Temperature Range	T_J, T_{STG}	-65 to +175							$^\circ\text{C}$

- NOTE:
1. Thermal Resistance from Junction to Ambient PC Board Mounting, 9.5mm Lead Length.
 2. Measured at 1MHz and applied reverse voltage of 4.0 Volts.
 3. Resistive or inductive load, 9.5 mm lead length to PC board.

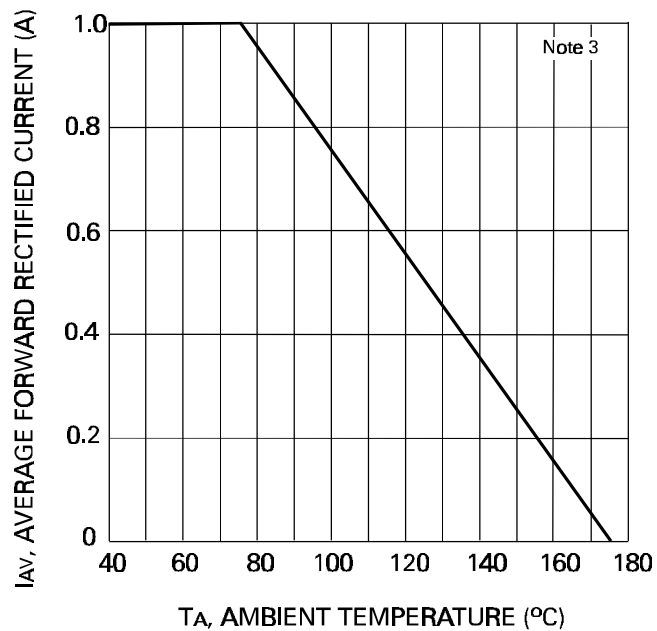


Fig. 1 Forward Current Derating Curve

0.6 0.8 1.0 1.2 1.4 1

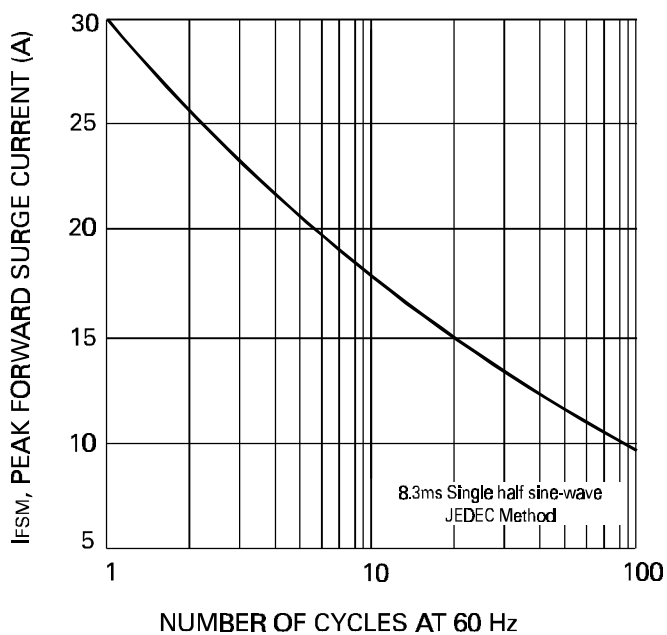


Fig. 3 Max Non-Repetitive Peak Fwd Surge Current

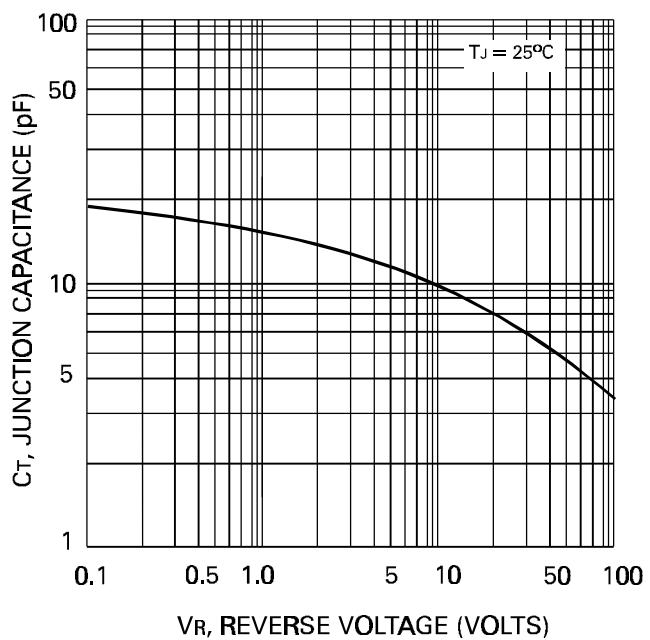


Fig. 4 Typical Junction Capacitance