

General Purpose Rectifier

COMCHIP
SMD DIODE SPECIALIST



1N4001-G thru 1N4007-G

Current: 1.0A

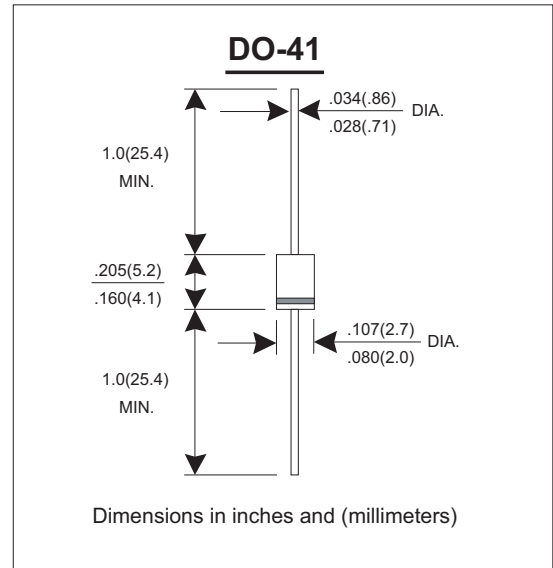
Voltage: 50 ~ 1000V

Features

- Low forward voltage drop
- High current capability
- Low reverse leakage current
- High surge current capability

Mechanical Data

- Case: Molded plastic A-405
- Epoxy: UL 94V-0 rate flame retardant
- Terminals: Solderable per MIL-STD-202 method 208 guaranteed
- Polarity: Color band denotes cathode end
- Mounting position: Any
- Weight: 0.22 gram



Maximum Rating and Electrical Characteristics

Rating at 25 C ambient temperature unless otherwise specified.

	SYMBOL	1N 4001-G	1N 4002-G	1N 4003-G	1N 4004-G	1N 4005-G	1N 4006-G	1N 4007-G	UNIT
Maximum repetitive 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 $T_L = 55^\circ\text{C}$	$I_F (AV)$	1.0							A
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	30							A
Maximum instantaneous forward voltage @ 1.0A	V_F	1.1							V
Maximum DC reverse current @ $T_J = 25^\circ\text{C}$ At Rated DC blocking voltage @ $T_J = 125^\circ\text{C}$	I_R	5.0 250							μA
Typical junction capacitance (Note 1)	C_J	10							pF
Typical thermal resistance (Note 2)	$R_{\theta JA}$	45							$^\circ\text{C/W}$
Operating junction and storage temperature Range	T_J, T_{STG}	-55 to +125							$^\circ\text{C}$

NOTES : (1) Thermal resistance junction to lead.

(2) Measured at 1.0MHz and applied reverse voltage of 4.0 Volts DC.

“-G” suffix designates RoHS compliant Version

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Ratings and Characteristic Curves 1N4001S-G thru 1N4007S-G

FIG.1 - FORWARD CURRENT DERATING CURVE

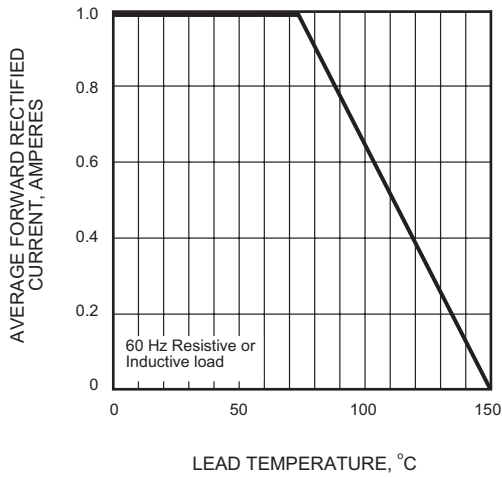


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

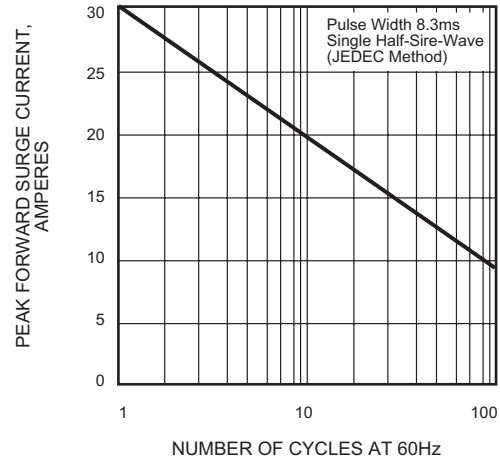


FIG.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

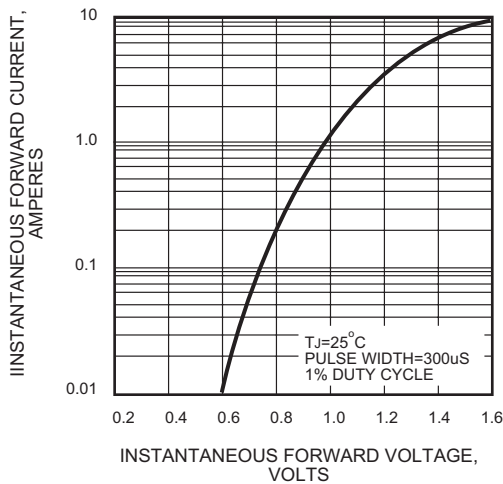


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

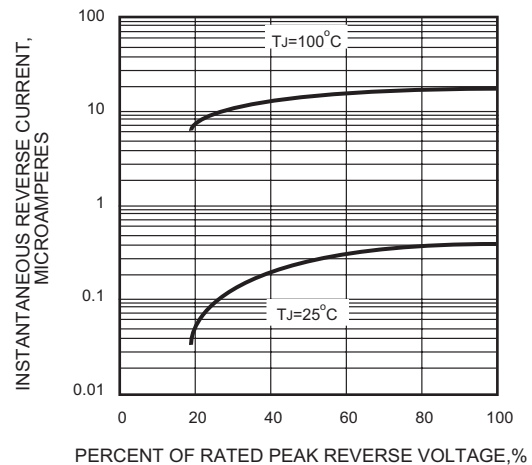
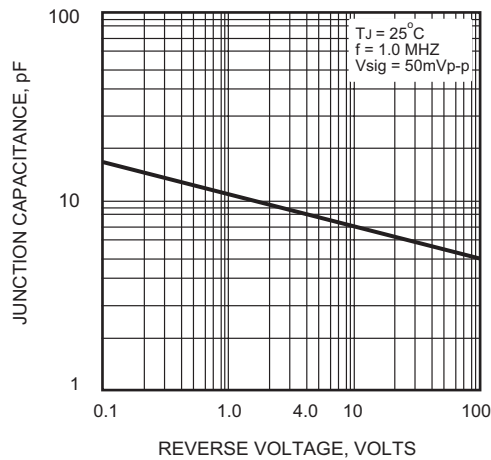


FIG.5 - TYPICAL JUNCTION CAPACITANCE



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