

**DO-41/A-405**



**Features**

- ROHS compliant
- Glass passivated chip
- High forward surge capability
- Meet MSL level 1, per J-STD-020  
LF maximum peak of 250 °C
- Solder dip 260 °C / 40S
- Component in accordance to ROHS 2002/95/EC and WEEE 2002/96/WC
- UL recognition, file number E342874



**Primary characteristics**

$I_{F(AV)}$	1A
$V_{RRM}$	50V to 1000V
$I_{FSM}$	30A
$I_{RM}$	5 $\mu$ A
$V_{FM}$ at $I_F=1A$	1.1V
$T_J$ max.	150 °C

**Applications**

Ideal for ac-to-dc bridge full wave rectification such as SMPS, home appliances, office equipment, industrial automation applications

**Mechanical data**

- Case:DO-41/ A-405
- Epoxy meets UL 94 V-0 flammability rating
- Terminals: Tin plated leads.
- Polarity: As marked.
- Mounting Torque:10cm·kg(8.8 inches·lbs)max.
- Recommended Torque:5.7 cm·kg(5 inches·lbs)

**Maximum rating (Ta=25°C unless otherwise noted)**

Parameter	Sym	DO-41/A-405							Unit
		1N 4001G	1N 4002G	1N 4003G	1N 4004G	1N 4005G	1N 4006G	1N 4007G	
Max. repetitive peak reverse voltage	$V_{RRM}$	50	100	200	400	600	800	1000	V
Max. RMS reverse voltage	$V_{RMS}$	35	70	140	280	420	560	700	V
Max. DC blocking voltage	$V_{DC}$	50	100	200	400	600	800	1000	V
Max. average forward current	$I_{F(AV)}$	1							A
Non-repetitive peak forward surge current 8.3ms single half-sine-wave	$I_{FSM}$	30							A
Max. instantaneous forward voltage drop per diode	$V_{FM}$	1.1(1A)							V
Max. instantaneous reverse current at rated DC blocking voltage	$I_{RM}$	Ta=25 °C							$\mu$ A
		Ta=125 °C							$\mu$ A
Operating junction temperature	$T_J$	-55 ~ +150							°C
Storage temperature	$T_{STG}$	-55 ~ +150							°C
Typical thermal resistance (Note 1)	R J-A	55							°C/W
	R J-L	25							°C/W
Typical junction capacitance (Note 2)	$C_J$	8							pF
Typical reverse recovery time (Note 3)	$t_{rr}$	1							us

**Notes:**

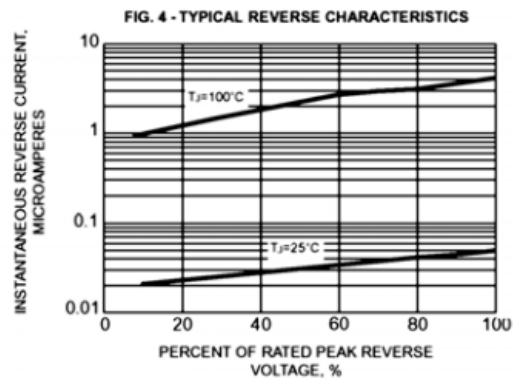
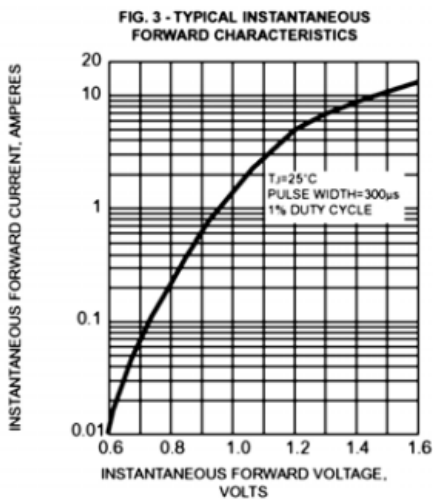
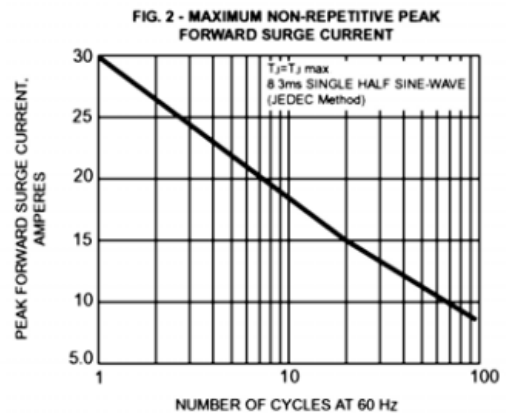
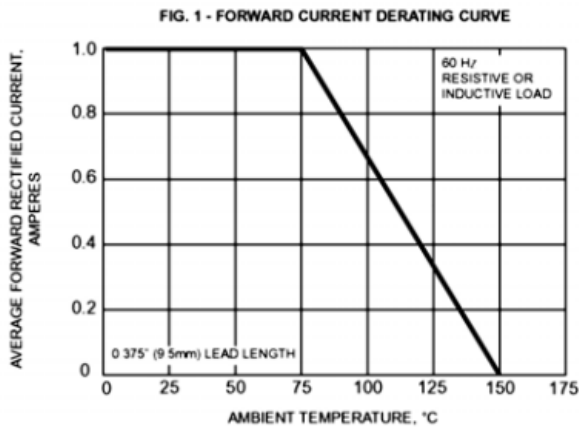
1. Thermal resistance from junction to ambient at 0.375" (9.5mm) lead length, P.C.B. mounted
2. Measured at 1 MHz and Applied Reverse Voltage of 4.0 V D.C
3. Reverse recovery test conditions:  $I_F=0.5A$ ,  $I_R=1.0A$ ,  $I_{rr}=0.25A$



Ordering information (Example)

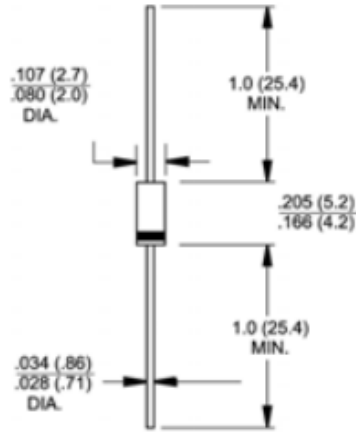
PREFERRED	UNIT WEIGHT (g)	PREFERRED PACKAGE CODE	BASE QUANTITY	DELIVERY MODE
1N4007G				

Typical characteristics

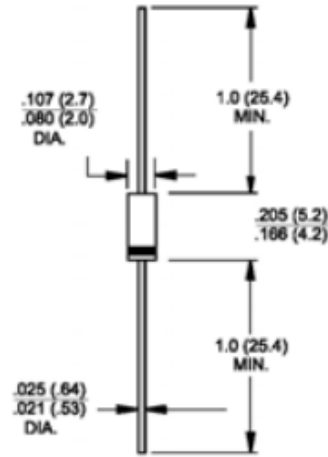


Package outline dimensions

DO-204AL (DO-41)



A-405



Dimensions in inches and (millimeters)

Dimensions in inches and (millimeters)

**Note:** Lead diameter is 0.025(0.64)/0.021(0.53) for part numbers from 1N4001SG thru 1N4007SG

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