

1N4001S-7S

STANDARD RECOVERY RECTIFIERS

Description

These Axial Leaded Rectifiers are used for General-Purpose Low-Power Applications

Features

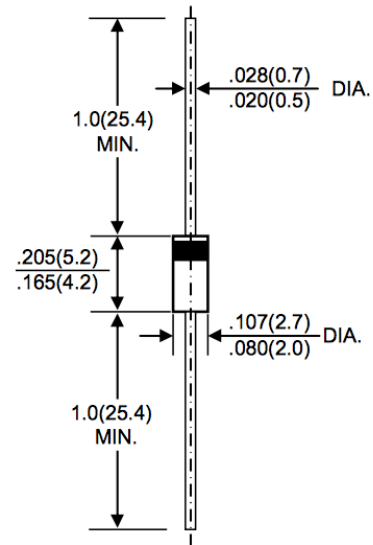
- Low cost
- Diffused junction
- Low forward voltage drop
- Low reverse leakage current
- High current capability
- The plastic material carries UL recognition 94V-0

Mechanical Data

- Case: JEDEC A-405 molded plastic
- Polarity: Color band denotes cathode
- Weight: 0.008 ounces , 0.22 grams
- Mounting position :Any

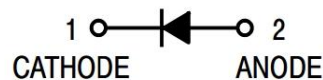
Packing & Order Information

3,000/Reel



Dimensions in inches and (millimeters)

Graphic symbol



RoHS
COMPLIANT

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

ABSOLUTE MAXIMUM RATINGS (Tc=25°C)

Parameter	Symbol	1N 4001S	1N 4002S	1N 4003S	1N 4004S	1N 4005S	1N 4006S	1N 4007S	Unit
Peak Repetitive Reverse Voltage Working	V_{RRM}								
Peak Reverse Voltage DC Blockng Voltage	V_{RMW} V_R	50	100	200	400	600	800	1000	V
Non-Repetitive Peak Reverse Voltage(halfwave, single phase, 60Hz)	V_{RSM}	60	120	240	480	720	1000	1200	V
RMS Reverse Voltage	$V_{R(RMS)}$	35	70	140	280	420	560	700	V
Average Rectified Current at Half Wave(0.375" Lead Length at Ta=75°C)	I_O				1				A
Non-Repetitive Peak Surge Current 8.3ms single half sine-wave superimposed on rated Load	I_{FSM}				30				A

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ABSOLUTE MAXIMUM RATINGS (Tc=25°C)

Parameter	Symbol	1N 4001S	1N 4002S	1N 4003S	1N 4004S	1N 4005S	1N 4006S	1N 4007S	Unit
Thermal Resistance from Junction to Ambient in free air	$R_{th(j-a)}$	50							°C/W

ABSOLUTE MAXIMUM RATINGS (Tc=25°C)

Parameter	Symbol	1N 4001S	1N 4002S	1N 4003S	1N 4004S	1N 4005S	1N 4006S	1N 4007S	Unit
Storage Temperature Range	Tstg	- 65 to +175							°C
Operating Junction Temperature	Tj	- 65 to +175							°C

ELECTRICAL CHARACTERISTICS (Tc=25°C unless otherwise noted)

Description	Symbol	Test Condition	Max	Unit
Maximum Instantaneous Forward Voltage Drop	V_F	$V_F = 1.0 \text{ A}$	1.1	V
Maximum Full-Cycle Average Forward Voltage Drop	$V_{F(AV)}$	$I_O = 1.0 \text{ A}, T_A = 75^\circ\text{C}$	0.8	V
Maximum Reverse Current	I_R	at rated VR $T_A = 25^\circ\text{C}$ $T_A = 100^\circ\text{C}$	500	μA
Maximum Full-Cycle Average Reverse Current	$I_{R(AV)}$	$I_O = 1.0 \text{ A}, T_A = 75^\circ\text{C}$	30	μA
Junction Capacitance	Cj	$V_R = 4 \text{ V}, f = 1\text{MHz}$	typ 15	pF

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■ Characteristics Curve

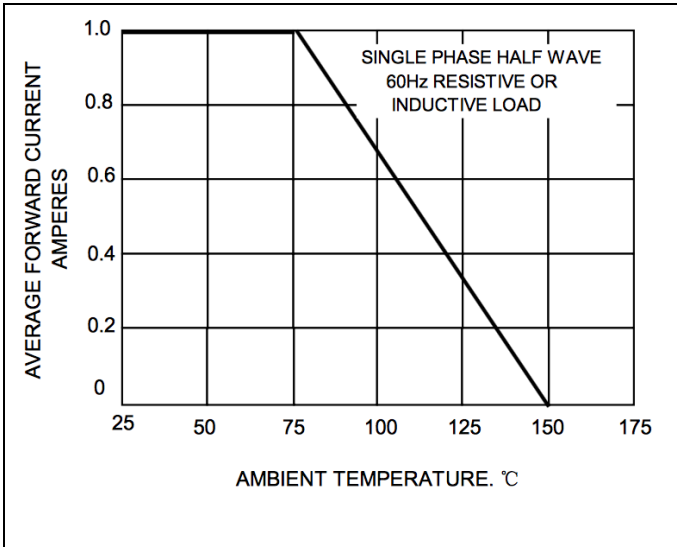


FIG.1-Power Derating Curve

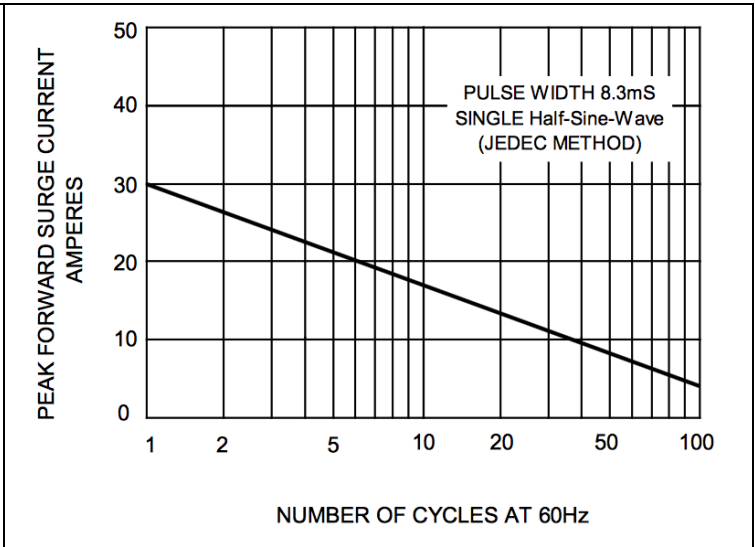


FIG.2-MAXIMUM NON-REPETITIVE SURGE CURRENT

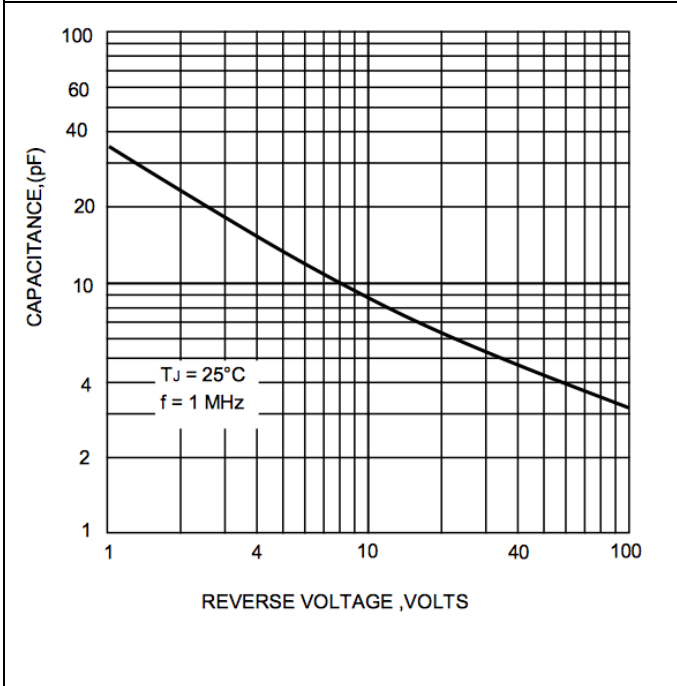


FIG.3-TYPICAL JUNCTION CAPACITANCE

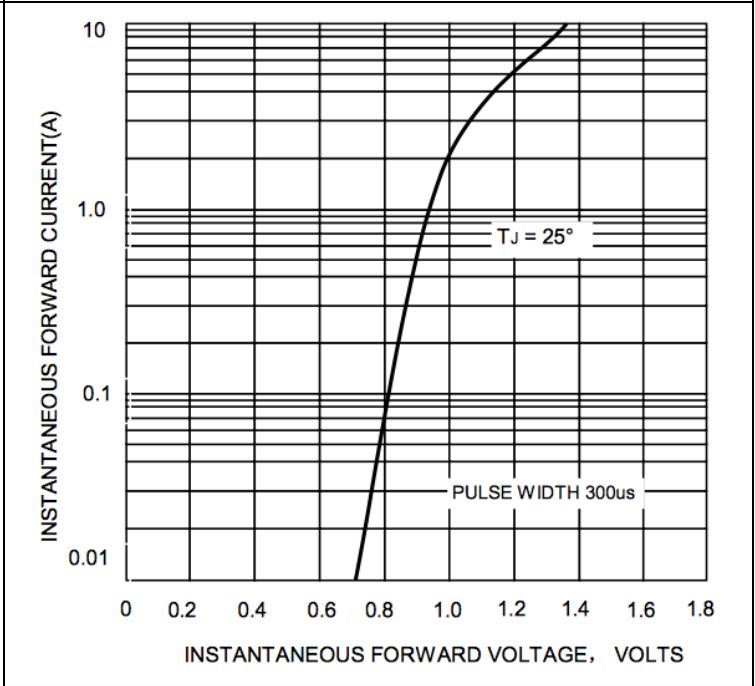


FIG.4-TYPICAL FORWARD CHARACTERISTICS

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