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

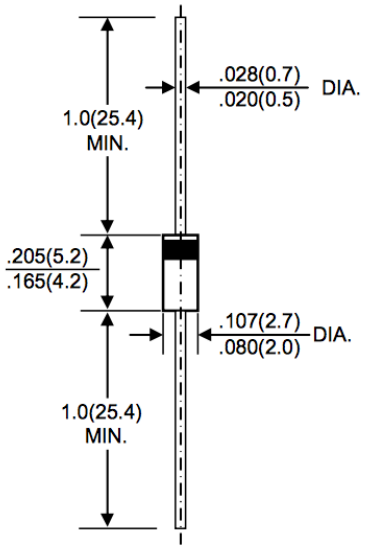
Weight: 0.008 ounces , 0.22 grams

Mounting position :Any

Packing & Order Information

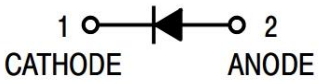
3,000/Reel

RoHS COMPLIANT



Dimensions in inches and (millimeters)

Graphic symbol



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 Peak Reverse Voltage DC Blockng Voltage	V_{RRM} 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**
StorageTemperature 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 A	1.1	V
Maximum Full-Cycle Average Forward Voltage Drop	$V_{F(AV)}$	I_O = 1.0 A, Ta = 75˚C	0.8	V
Maximum Reverse Current	I_R	at rated VR T_A = 25˚C T_A = 100˚C	500	μA
Maximum Full-Cycle Average Reverse Current	$I_{R(AV)}$	I_O = 1.0 A, Ta = 75˚C	30	μA
Junction Capacitance	Cj	V_R = 4 V , f = 1MHz	typ 15	pF

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STANDARD RECOVERY RECTIFIERS

■Characteristics Curve

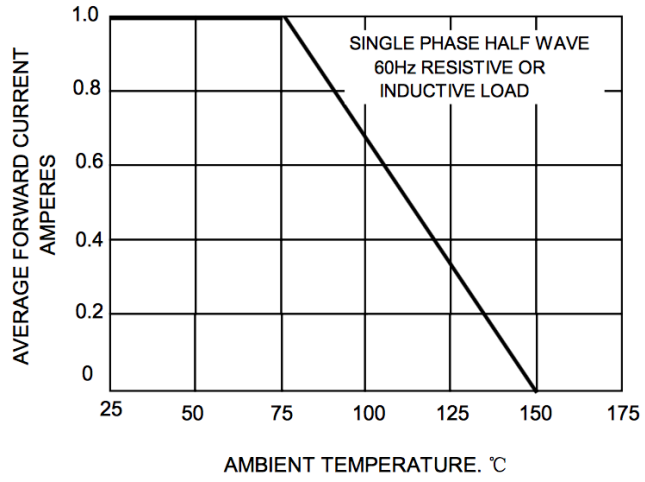

FIG.1-Power Derating Curve

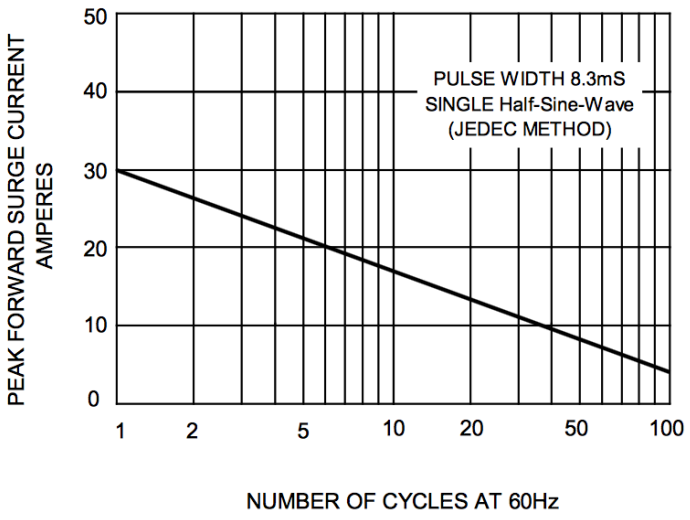

FIG.2-MAXIMUM NON-REPETITIVE SURGE CURRENT

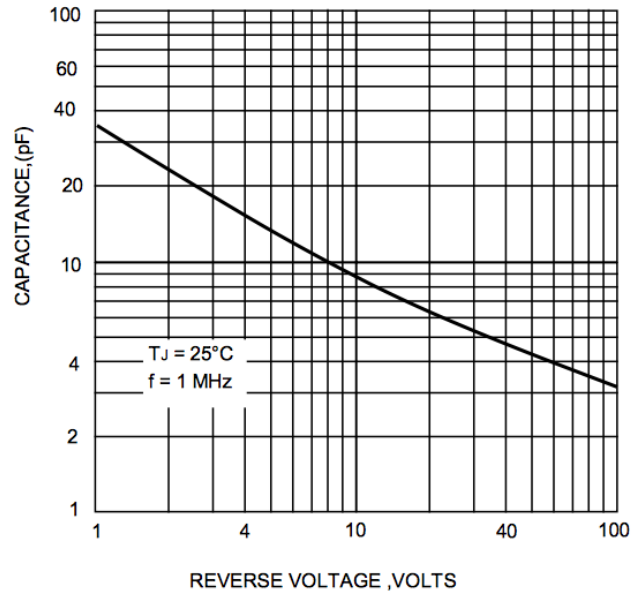

FIG.3-TYPICAL JUNCTION CAPACITANCE

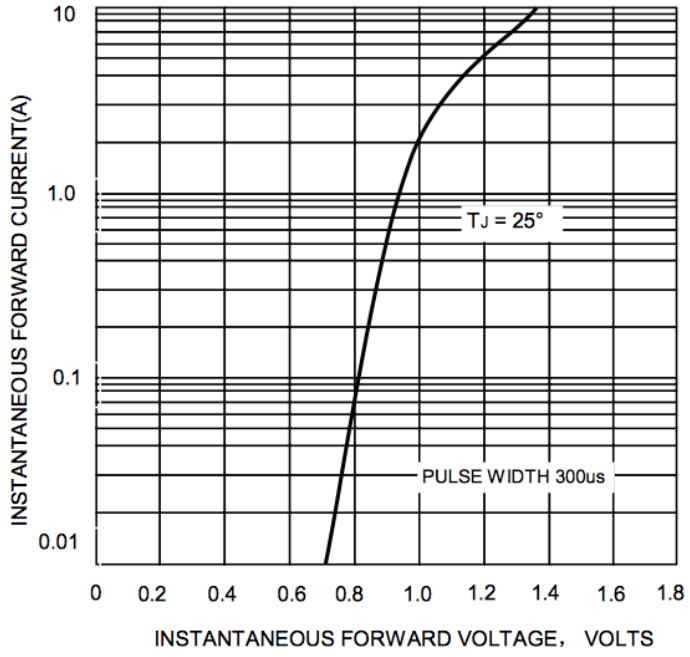

FIG.4-TYPICAL FORWARD CHARACTERISTICS

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