

1N4001G~1N4007G

Rev.B Jun.-2022

描述 / Descriptions

表面贴装整流二极管，反向电压：50V~1000V，正向电流：1.0A，轴向 DO-41 封装。

Surface Mount General Purpose Silicon Rectifiers, Reverse Voltage: 50 to 1000V, Forward Current: 1.0A, DO-41 axial package.

特征 / Features

电镀轴向引脚，低正向压降，低泄漏电流，高正向浪涌能力。

Plated axial lead, Low forward voltage drop, Low leakage current, High forward surge capability.

用途 / Applications

一般用途。

General purpose.

内部等效电路 / Equivalent Circuit



引脚排列 / Pinning



PIN1: Cathode PIN2: Anode

印章代码 / Marking

见印章说明。See Marking Instructions.

极限参数 / Absolute Maximum Ratings(Ta=25°C)

参数 Parameter	符号 Symbol	数值 Rating							单位 Unit
		1N4001G	1N4002G	1N4003G	1N4004G	1N4005G	1N4006G	1N4007G	
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 $T_a=65^\circ\text{C}$	$I_{F(AV)}$	1.0							A
Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load (JEDEC Method)	I_{FSM}	30							A
Typical Junction Capacitance ¹⁾	C_j	15							pF
Typical Thermal Resistance ²⁾	$R_{\theta JA}$	50							$^\circ\text{C}/\text{W}$
Operating and Storage Temperature Range	T_j, T_{stg}	-55~+150							$^\circ\text{C}$

Note:

1) Measured at 1.0MHz and applied reverse voltage of 4.0 Volts.

2) Thermal Resistance from Junction to Ambient at. 1.8×1.8mm² copper pad areas.
电性能参数 / Electrical Characteristics(Ta=25°C)

参数 Parameter	符号 Symbol	测试条件 Test Conditions	数值 Rating							单位 Unit
			1N4001G	1N4002G	1N4003G	1N4004G	1N4005G	1N4006G	1N4007G	
Maximum Instantaneous Forward Voltage	V_F	$I_F=1.0\text{A}$	1.1							V
Maximum DC Reverse Current at Maximum DC Blocking Voltage	I_R	$T_a=25^\circ\text{C}$	5.0							μA
		$T_a=125^\circ\text{C}$	100							μA

电参数曲线图 / Electrical Characteristic Curve

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

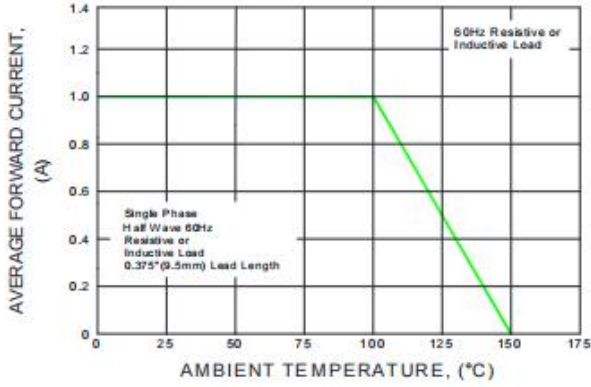


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

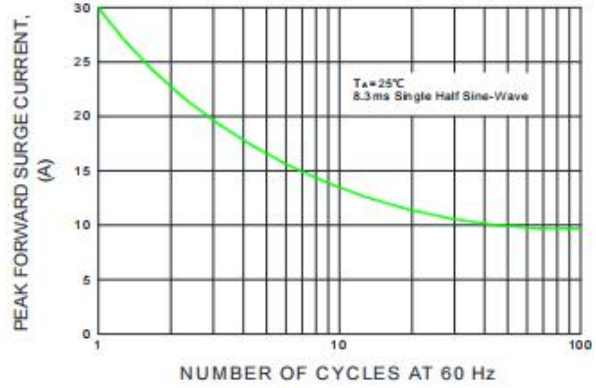


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

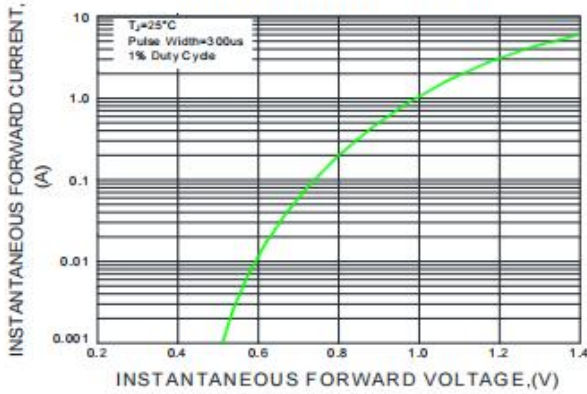


FIG.4-TYPICAL REVERSE CHARACTERISTICS

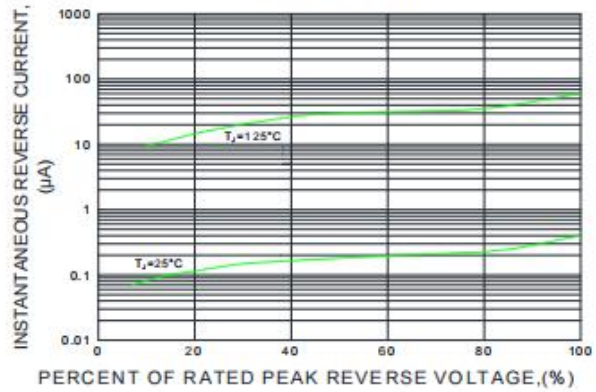
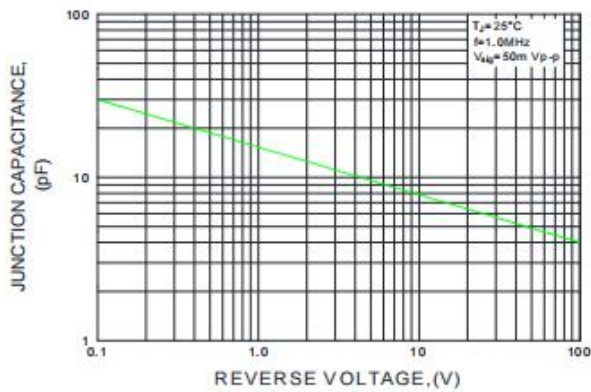
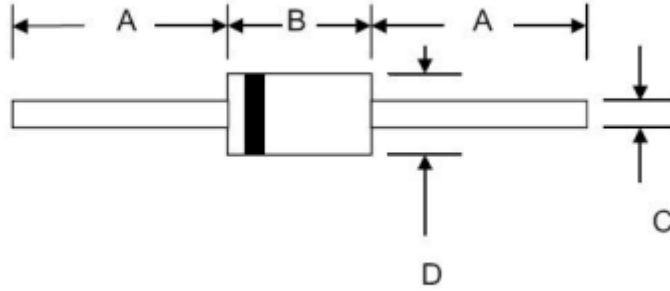


FIG.5-TYPICAL JUNCTION CAPACITANCE



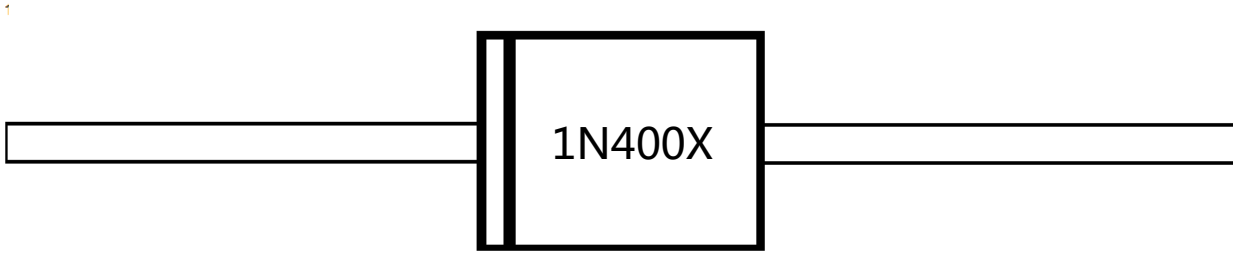
外形尺寸图 / Package Dimensions

DO-41



SYMBOL	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	25.4		1.0	
B	4.1	5.2	0.160	0.205
C	0.58	0.78	0.023	0.031
D	2.0	2.7	0.080	0.107

印章说明 / Marking Instructions



说明：

1N400X： 为型号代码

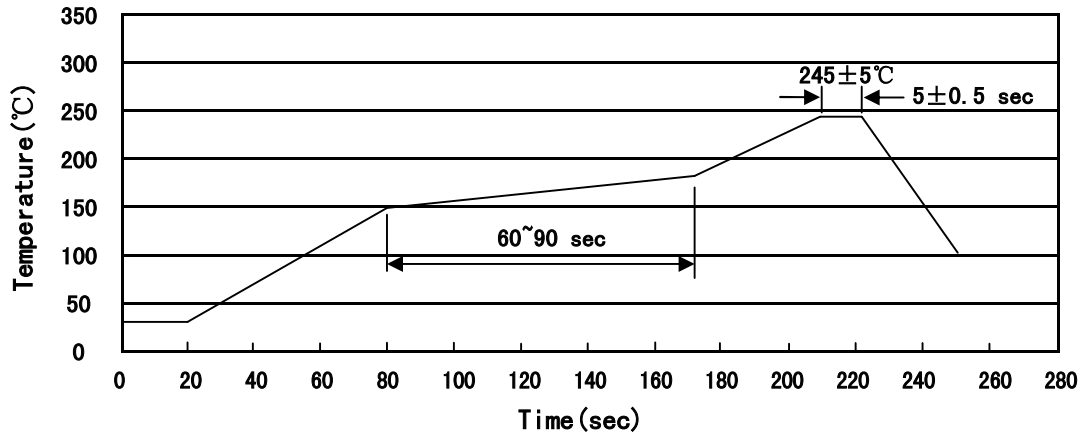
Note:

1N400X： Product Type Code

Marking

Type number	Marking code
1N4001G	1N4001
1N4002G	1N4002
1N4003G	1N4003
1N4004G	1N4004
1N4005G	1N4005
1N4006G	1N4006
1N4007G	1N4007

回流焊温度曲线图(无铅) / Temperature Profile for IR Reflow Soldering(Pb-Free)



说明：

- 1、预热温度 150 ~ 180°C，时间 60 ~ 90sec;
- 2、峰值温度 245±5°C，时间持续为 5±0.5sec;
- 3、焊接制程冷却速度为 2 ~ 10°C/sec.

Note:

- 1.Preheating:150~180°C, Time:60~90sec.
- 2.Peak Temp.:245±5°C, Duration:5±0.5sec.
3. Cooling Speed: 2~10°C/sec.

耐焊接热试验条件 / Resistance to Soldering Heat Test Conditions

温度：260±5°C

时间：10±1 sec.

Temp.:260±5°C

Time:10±1 sec

包装规格 / Packaging SPEC.

卷盘包装 / REEL

Package Type 封装形式	Units 包装数量					Dimension 包装尺寸 (unit: mm ³)		
	Units/Reel 只/卷盘	Reels/Inner Box 卷盘/盒	Units/Inner Box 只/盒	Inner Boxes/Outer Box 盒/箱	Units/Outer Box 只/箱	Reel	Inner Box 盒	Outer Box 箱
DO-41	5000	1	5000	10	50000	7" ×6	255X75X140	443X215X250

使用说明 / Notices