GSS1N4001 Series

Axial Lead General Purpose Plastic Rectifier

Product Description

General Purpose Rectifiers 1.0 A / 50V to 1000V

Features

- The plastic package carries Under Writers Laboratory Flammability Classification 94V-0
- Construction utilizes void-free molded plastic technique
- Low reverse leakage
- High forward surge current capability
- Lead(Pb)-Free

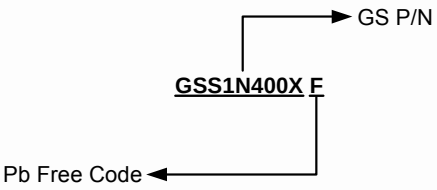
Mechanical Data

- Case : DO-41 molded plastic body
- Terminals : Plated Axial Leads, solderable per MIL-STD-750, method 2026
- Polarity : Color band denotes cathode end
- Weight : 0.33 Grams

Packages

DO-41

Ordering & Marking Information



P/N	Package	Part Marking	Quantity
GSS1N4001F	DO-41	WTYYWW 1N4001.	5000 PCS
GSS1N4002F	DO-41	WTYYWW 1N4002.	
GSS1N4003F	DO-41	WTYYWW 1N4003.	
GSS1N4004F	DO-41	WTYYWW 1N4004.	
GSS1N4005F	DO-41	WTYYWW 1N4005.	
GSS1N4006F	DO-41	WTYYWW 1N4006.	
GSS1N4007F	DO-41	WTYYWW 1N4007.	

Electrical Characteristics

(Rating 25°C Ambient Temperature Unless Otherwise Specified.)

Symbol	Conditions	1N4001	1N4002	1N4003	1N4004	Unit
V_{RRM}	Maximum Repetitive Peak Reverse Voltage	50	100	200	400	V
V_{RMS}	Maximum RMS Voltage	35	70	140	280	V
V_{DC}	Maximum DC Blocking Voltage	50	100	200	400	V

Symbol	Conditions		1N4005	1N4006	1N4007	Unit
V_{RRM}	Maximum Repetitive Peak Reverse Voltage		600	800	1000	V
V_{RMS}	Maximum RMS Voltage		420	560	700	V
V_{DC}	Maximum DC Blocking Voltage		600	800	1000	V
V_F	Maximum Instantaneous Forward Voltage I_F=1.0A		1.1			V
I_R	Maximum DC Reverse Current At Rated DC Blocking Voltage	T_A=25°C	5.0			uA
		T_A=100°C	50			
T_{rr}	Typical reverse recovery time (1) I_F=0.5A, I_R=1.0A, I_{rr}=0.25A		2.0			uS
C_J	Typical Junction Capacitance (2) V_R=4.0V, f=1.0MHz		15(TYP)			pF
$I_{F(AV)}$	Maximum Average Forward Rectified Current @T_A=75°C		1.0			A
I_{FSM}	Peak forward surge current 8.3mS single half sine-wave superimposed on rated load (MIL-STD-750D 4066 method) @T_A=75°C		30			A
$R_{\Theta JA}$	Typical Thermal Resistance (3)		50			°C/W
$R_{\Theta JC}$			25			°C/W
T_A	Maximum DC blocking voltage temperature		+150			°C
T_J	Operating Junction Temperature Range		-50 to +125			°C
T_{STG}	Storage Temperature Range		-50 to +125			°C

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

Typical Characteristics

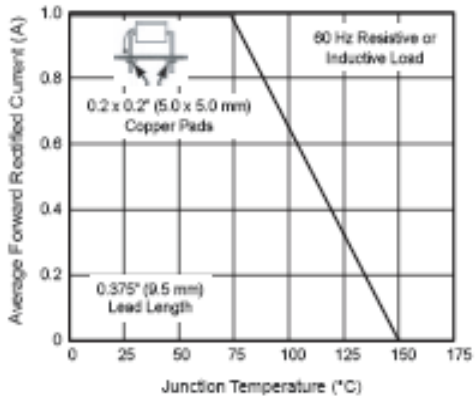


Fig.1 Forward Current Derating Curve

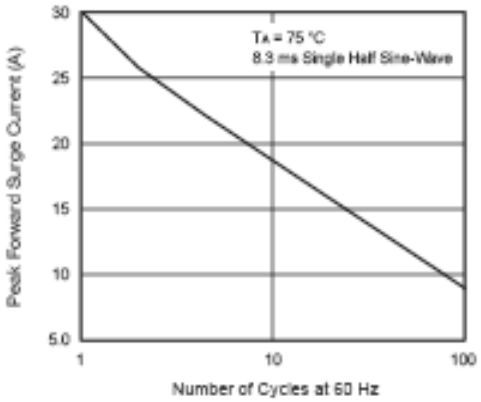


Fig.2 Maximum Non-repetitive Peak Forward Surge Current

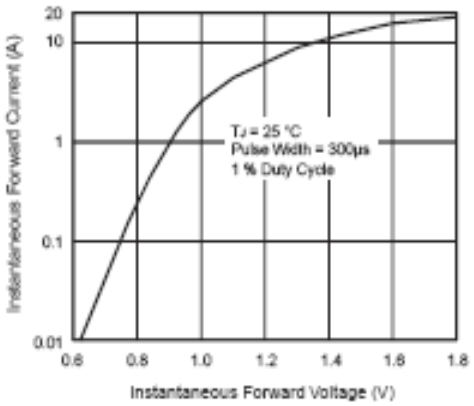


Fig.3 Typical Instantaneous Forward Characteristics

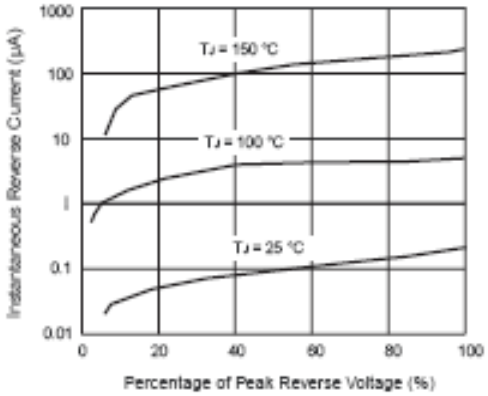


Fig.4 Typical Reverse Characteristics

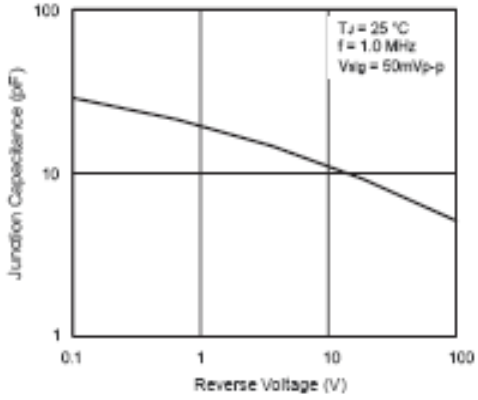


Fig.5 Typical Junction Capacitance

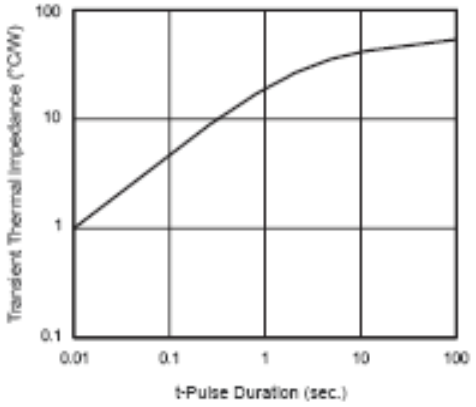
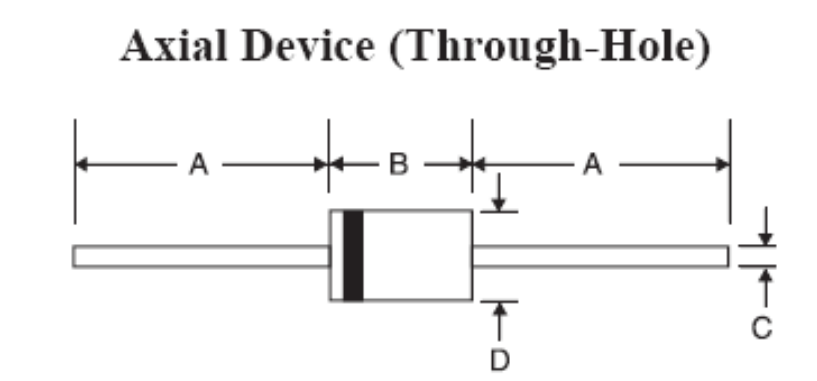


Fig.6 Typical Transient Thermal Impedance

Package Dimension

DO-41



Dimensions				
Symbol	Millimeters		Inches	
	Min	Max	Min	Max
A	25.40	-	1.00	-
B	4.06	5.20	0.16	0.20
C	0.70	0.90	0.03	0.04
D	2.00	2.70	0.08	0.11

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