

1N5399S(LS)

PLASTIC SILICON RECTIFIERS

FEATURES

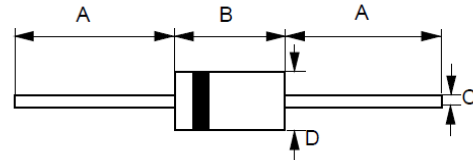
- Low cost
- Diffused junction
- Low forward voltage drop
- Low reverse leakage current
- High current capability
- The plastic material carries UL recognition 94V-0
- **Lead-Free Finish; RoHS Compliant (Notes 1 & 2)**
- **Halogen and Antimony Free. "Green" Device (Note 3)**

MECHANICAL DATA

- Package : JEDEC DO-41 molded plastic
- Polarity : Color band denotes cathode
- Weight : 0.012 ounces, 0.34 grams
- Mounting position : Any

REVERSE VOLTAGE – 1000 Volts FORWARD CURRENT – 1.5 Amperes

DO-41



DO-41		
Dim	Min.	Max.
A	25.4	-
B	4.10	5.20
C	0.71 ϕ	0.86 ϕ
D	2.00 ϕ	2.70 ϕ
All Dimensions in millimeter		

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

PARAMETER		SYMBOL	1N5399S	UNIT
Maximum Recurrent Peak Reverse Voltage		V_{RRM}	1000	V
Maximum RMS Voltage		V_{RMS}	700	V
Maximum DC Blocking Voltage		V_{DC}	1000	V
Maximum Average Forward Rectified Current .375", (9.5mm) Lead Lengths	@ $T_L = 70^\circ\text{C}$	$I_{(AV)}$	1.5	A
Peak Forward Surge Current 8.3ms single half sine-wave super imposed on rated load (JEDEC METHOD)		I_{FSM}	50	A
Maximum forward Voltage at 1.5A DC		V_F	1.1	V
Maximum DC Reverse Current at Rated DC Blocking Voltage	@ $T_J = 25^\circ\text{C}$ @ $T_J = 100^\circ\text{C}$	I_R	5 50	μA
Typical Junction Capacitance (Note 4)		C_T	20	pF
Typical Thermal Resistance (Note 5)		R_{thJL}	26	$^\circ\text{C/W}$
Operating Temperature Range		T_J	-55 to +150	$^\circ\text{C}$
Storage Temperature Range		T_{STG}	-55 to +150	$^\circ\text{C}$

Note :

REV.4, Oct-2021, KDAC02

1. EU Directive 2002/95/EC (RoHS), 2011/65/EU (RoHS 2) & 2015/863/EU (RoHS 3) compliant. All applicable RoHS exemptions applied.
2. See <https://www.diodes.com/quality/lead-free/> for more information about Diodes Incorporated's definitions of Halogen- and Antimony-free, "Green" and Lead-free.
3. Halogen- and Antimony-free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.
4. Measured at 1.0MHz and applied reverse voltage of 4.0V DC
5. Thermal Resistance Junction to Lead.

RATING AND CHARACTERISTIC CURVES
1N5399S

FIG.1 - FORWARD CURRENT DERATING CURVE

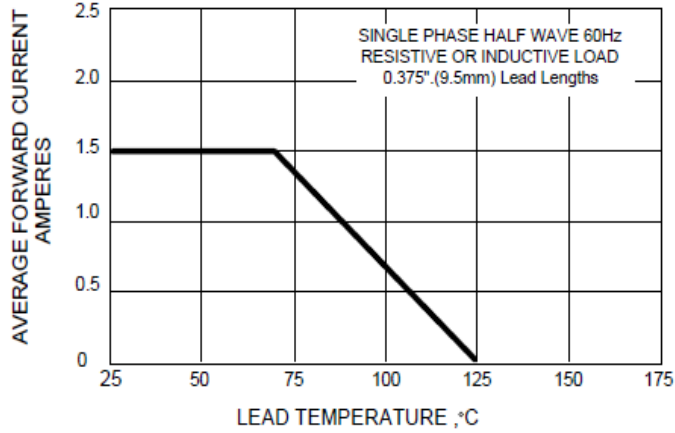


FIG.2 - MAXIMUM NON-REPETITIVE SURGE CURRENT

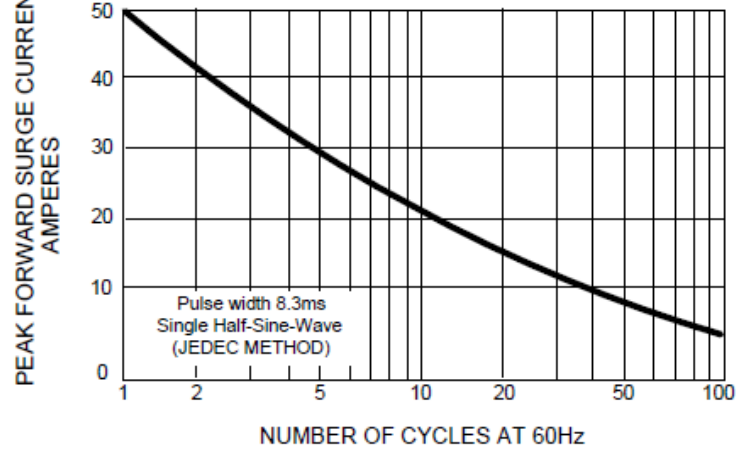


FIG.3 - TYPICAL JUNCTION CAPACITANCE

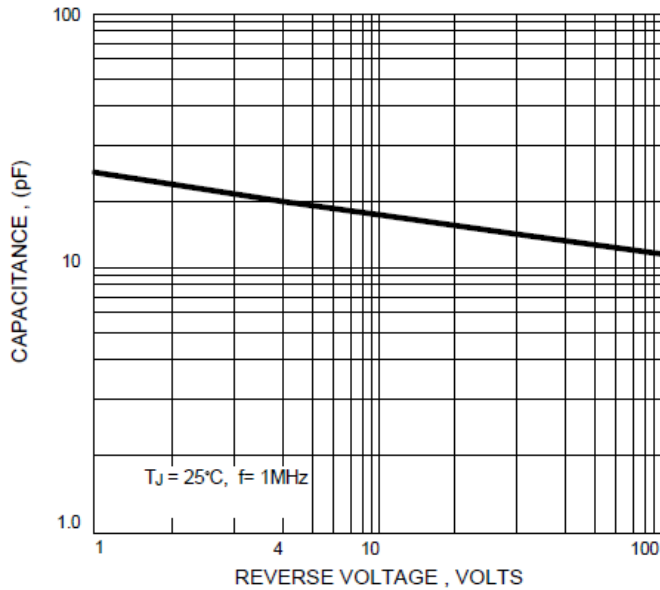
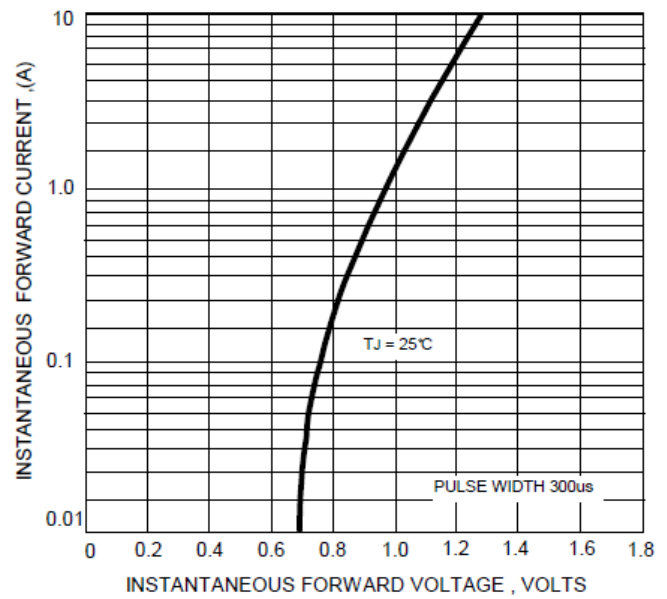


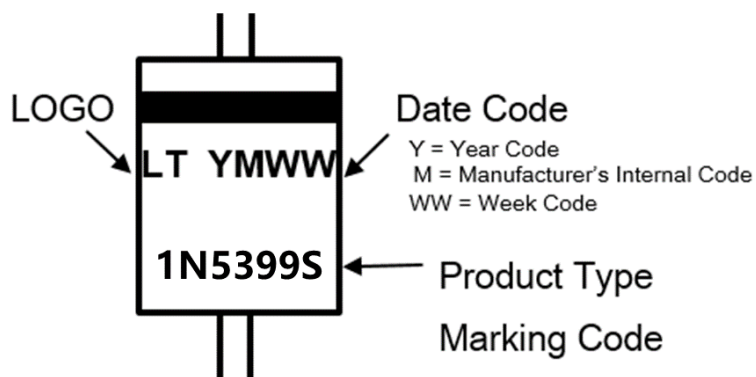
FIG.4 - TYPICAL FORWARD CHARACTERISTICS



Ordering Information :

Part Number	Package	Packing	
		Qty.	Carrier
1N5399S_HF	DO-41	5000pcs	Reel

Marking Information :



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