

Features

- Low Reverse Leakage Current
- Hermetically Sealed Non-cavity Parts
- Good Thermal Shock Resistance
- Low Forward Voltage Drop
- Qualified to MIL-PRF-19500/427, Levels JAN, JANTX, JANTXV. JANS level in qualification process
- Square end-cap (US) surface mount package part

Quick Reference Data

- $V_{RWM} = 200$ to 1,000 Volts
- $I_f = 1.0$ A
- $t_{rr} = 2.0$ μ s

Electrical Specifications (Electrical Specifications at T=25°C unless otherwise specified)

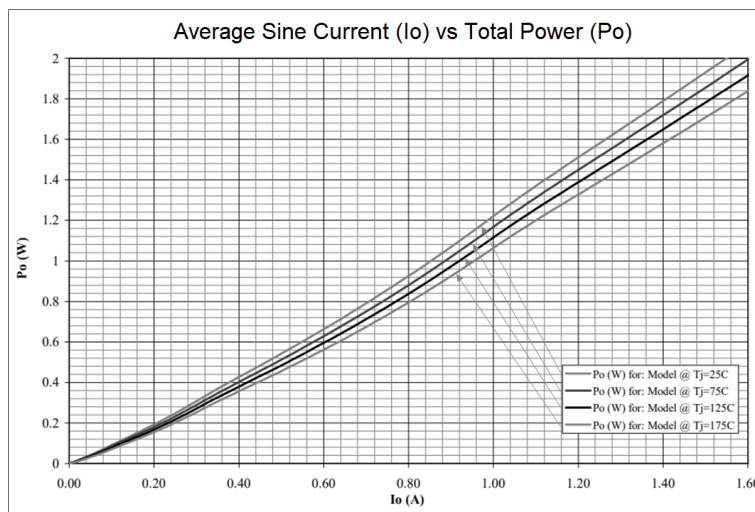
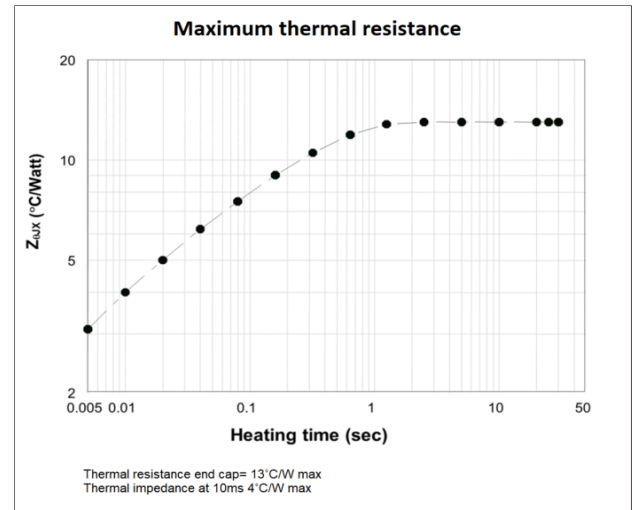
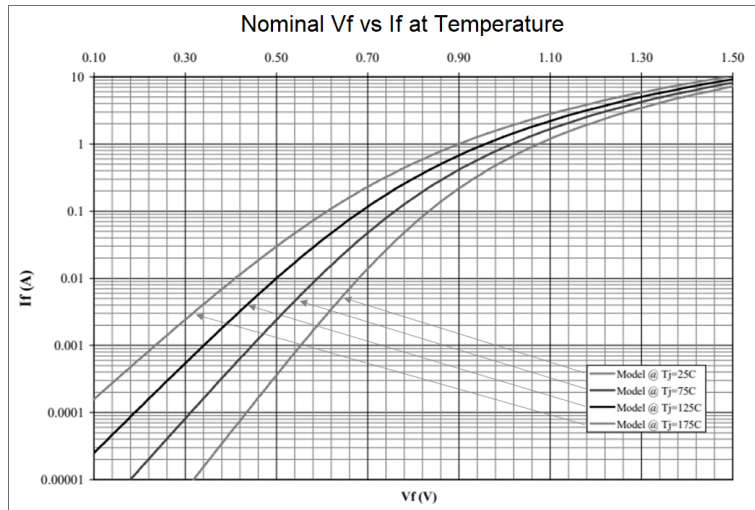
Parameters/Test Conditions	Symbol	1N5614 US	1N5616 US	1N5618 US	1N5620 US	1N5622 US	Units
Working Reverse Voltage	V_{RWM}	200	400	600	800	1,000	Volts
Repetitive Reverse Voltage	V_{RRM}	200	400	600	800	1,000	Volts
Minimum Breakdown Voltage	V_{BR}	220	440	660	880	1,100	Volts
Maximum Forward Current ¹	$I_{F(AV)}$	1.0					Amps
Maximum Repetitive Surge Current ¹	I_{FRM}	10					Amps
Max Surge Current. tp=8.3ms	I_{FSM}	30					Amps
Maximum Reverse Leakage Current at V_{RWM} 25°C 125°C	I_{R1} I_{R2}	0.5 25					μ Amps
Maximum Forward Voltage Drop at I_F ² 1.0A 3.0A	V_F	1.1 1.3					Volts
Storage and Operating Junction Temperatures	T_{STG}, T_J	-65 to +175					°C
Max. Thermal Resistance	$R_{\theta JEC}$	13.0					°C/W
Maximum Recovery Time ³	t_{rr}	2.0					μ s
Typical Junction Capacitance ⁴	C_j	23					pF

Notes:

- 1) @ 55°C
- 2) $t_p=300\mu$ s 2% max. duty cycle
- 3) Recovery conditions $I_F=0.5A$, $I_R=1.0A$, $IRR=0.25A$
- 4) $V_r=5.0V$, $f=1MHz$

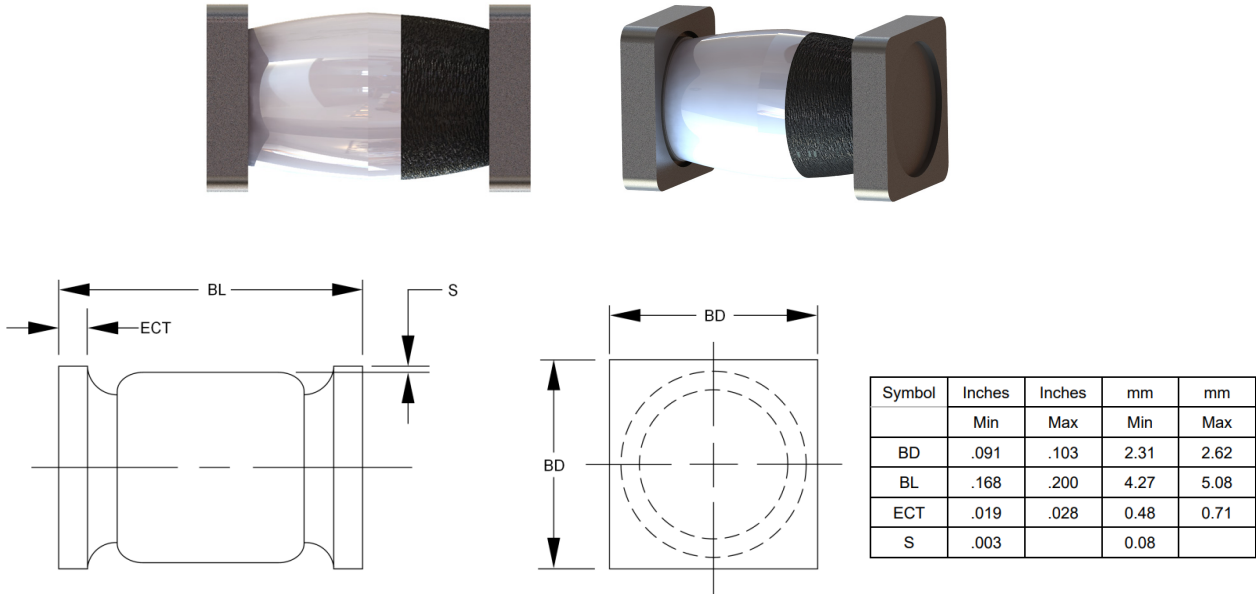
Electrical Characteristics (@ 25°C unless otherwise specified)

Parameters	Symbol	Range	Unit
Storage temperature	Tstg	-65 to +175	°C
Operating temperature	Tj	-65 to +175	°C



Outline drawing

Surface mount types 1N5614US through 1N5622US



Notes:

1. Dimensions are in inches. Millimeters are given for general information only.
2. Dimensions are pre-solder dip.
3. The S dimension is minimum clearance of glass body to mounting surface on all orientations.
4. In accordance with ASME Y14.5, diameters are equivalent to $\varnothing$ x symbology.

Ordering Information

Part Number	Description
1N5614US thru 1N5622US	Square end-cap (US) surface mount package part ⁽¹⁾

Notes:

1. Surface mount parts available in trays or tape and reel. Please consult factory for quantities