



Solid State Devices, Inc.

14701 Firestone Blvd * La Mirada, CA 90638
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**JANS1N6512 – JANS1N6519
 Series**

**0.5 – 1.5 AMP
 1,500 V – 10,000 V
 ULTRA FAST RECOVERY
 HIGH VOLTAGE RECTIFIER**

Designer's Data Sheet

Part Number / Ordering Information ^{1/ 7/}

JANS 1N651

Package
 ___ = Axial

Voltage

2 = 1,500 V 6 = 4,000 V
 3 = 2,000 V 7 = 5,000 V
 4 = 2,500 V 8 = 7,500 V
 5 = 3,000 V 9 = 10,000 V

Screening^{2/}
 JANS

FEATURES:

- Fast recovery: 70 nsec maximum
- PIV to 10 KV
- Hermetically sealed axial package
- Void-free ceramic frit glass construction
- High temperature Category I eutectic metallurgical bond
- Excellent thermal shock performance
- For use in high voltage systems
- 175°C maximum operating temperature
- JANS screening available in accordance with MIL-PRF-19500/575

MAXIMUM RATINGS^{3/}

Part Number	V _{RWM}	I _{FSM}	I _O		t _{RR}	R _{θJL1}	R _{θJL2}
Conditions		t _p = 8.3 ms	^{4/}	^{5/}	25°C	L = .25" (6.35 mm) (Air)	L = .25" (6.35 mm) (Oil Bath) ^{6/}
Units	V _{DC}	A (pk)	A _{DC}	A _{DC}	ns	°C/W	°C/W
1N6512	1,500	100	1.5	1.0	70	16	12
1N6513	2,000	100	1.5	1.0	70	16	12
1N6514	2,500	60	1.0	0.65	70	16	12
1N6515	3,000	60	1.0	0.65	70	16	12
1N6516	4,000	40	0.75	0.5	70	16	12
1N6517	5,000	40	0.75	0.5	70	16	12
1N6518	7,500	25	0.5	0.35	70	16	12
1N6519	10,000	25	0.5	0.35	70	16	12

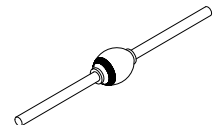
MAXIMUM RATINGS^{3/}

	Symbol	Value	Unit
Storage Temperature	T _{STG}	-65 to +200	°C
Operating Temperature	T _J	-65 to +175	°C

Notes:

- 1/ For ordering information, price, and availability – Contact factory.
- 2/ Screened per MIL-PRF-19500/575.
- 3/ Unless otherwise specified, T_A = 25°C.
- 4/ Derate linearly for air (+55°C ≤ T_A ≤ +100°C. I_O at T_A = +55°C to I_O at T_A = +100°C), for oil bath (+80°C ≤ T_L ≤ +100°C. I_O at T_L = +80°C to I_O at T_A = +100°C).
- 5/ Derate linearly for air (+100°C ≤ T_A ≤ +175°C. I_O at T_A = +100°C to I_O = 0A at T_A = +175°C), for oil bath (+100°C ≤ T_L ≤ +175°C. I_O at T_L = +100°C to I_O = 0A at T_A = +175°C).
- 6/ Oil or fluorocarbon fluid with leads heat sunk at specified L.
- 7/ See Test Report #19500-3830-13.

Axial



NOTE: All specifications are subject to change without notification. SCD's for these devices should be reviewed by SSDI prior to release.

DATA SHEET #: RC0172B

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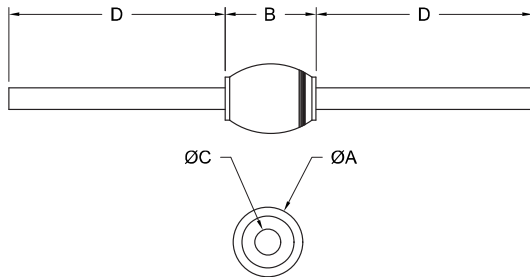
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ELECTRICAL CHARACTERISTICS

Part Number	V_{RWM}	I_O	I_{R1}	V_{F1}	C
Conditions		$T_A = +55^\circ\text{C}$	$T_A = 25^\circ\text{C}$	@ I_O	$V_R = 50\text{V}$ $F_O = 1\text{ kHz}$
Units	V_{DC}	A_{DC}	μA_{DC}	$V_{(pk)}$	pF
1N6512	1,500	1.5	1.0	3.5	25
1N6513	2,000	1.5	1.0	3.5	25
1N6514	2,500	1.0	1.0	6.0	20
1N6515	3,000	1.0	1.0	6.0	20
1N6516	4,000	0.75	1.0	8.0	16
1N6517	5,000	0.75	1.0	8.0	16
1N6518	7,500	0.5	1.0	13.0	8
1N6519	10,000	0.5	1.0	13.0	8

PACKAGE OUTLINE: Axial



DIMENSIONS

Part Number	A		B		C		D	
	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX
1N6512	.155	.215	.25	.31	.037	.043	1.0	1.3
1N6513	.155	.215	.25	.31	.037	.043	1.0	1.3
1N6514	.155	.215	.27	.33	.037	.043	1.0	1.3
1N6515	.155	.215	.27	.33	.037	.043	1.0	1.3
1N6516	.155	.215	.29	.35	.037	.043	1.0	1.3
1N6517	.155	.215	.29	.35	.037	.043	1.0	1.3
1N6518	.155	.215	.34	.40	.037	.043	1.0	1.3
1N6519	.155	.215	.34	.40	.037	.043	1.0	1.3

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