SSEQUE State Devices, Inc. 14701 Firestone Blvd * La Mirada, CA 90638 Phone: (562) 404-4474 * Fax: (562) 404-1773 3sti@ssdi-power.com * www.ssdi-power.com Designer's Data Sheet Part Number/Ordering Information ^{1/} 1N802		1N8021 thru 1N8023 SERIES		
		1 AMP 100 – 200 VOLTS 10 nsec HYPER FAST RECOVERY RECTIFIER		
MAXIMUM RATINGS ^{3/} RATING		SYMBOL	VALUE	UNIT
Peak Repetitive Reverse Voltage DC Blocking Voltage	1N8021 1N8022 1N8023	V _{RWM} V _R	100 150 200	Volts
Average Rectified Forward Current (Resistive load, 60 Hz, sine wave, T _C = 25°C)		lo	1	Amp
Peak Surge Current (8.3 msec pulse, half sine wave superimposed on Io, allow ju reach equilibrium between pulses, $T_c = 25^{\circ}C$)	unction to	I _{FSM}	20	Amps
. , , , ,			1	1

Thermal Resistance SMS- Junction to End Tab Axial- Junction to Lead @ .375"

Operating & Storage Temperature

NOTES:

1/ For ordering information, price, and availability - contact factory.

2/ Screening based on MIL-PRF-19500. Screening flows available on request.

3/ Unless otherwise specified, all electrical characteristics @25°C.

Axial Leaded

-65 to +175

20

80

T_{OP} and T_{STG}

 $R_{\theta JE}$

R_{0JL}



SMS

°C

°C/W



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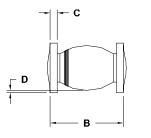
1N8021 thru 1N8023 SERIES

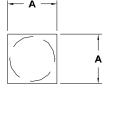
ELECTRICAL CHARACTERISTICS 3/

CHARACTERISTICS			LIMIT	UNIT
Maximum Instantaneous Forward Voltage Drop (Pulsed, T _A = 25°C)		V _{F1} V _{F2} V _{F3} V _{F4} V _{F5} V _{F6}	0.550 0.660 0.810 0.860 0.950 1.000	Vdc
Maximum Instantaneous Forward Voltage Drop (Pulsed, $T_A = 125^{\circ}C$)	@ I _F = 10mA @ I _F = 100mA	V _{F7} V _{F8}	0.500 0.640	Vdc
Maximum Instantaneous Forward Voltage Drop (Pulsed, $T_A = -55^{\circ}C$)	@ I _F = 10mA @ I _F = 100mA	V _{F9} V _{F10}	0.840 0.940	Vdc
Minimum Breakdown Voltage I _R = 100 μA	1N8021 1N8022 1N8023	BV _R	110 165 220	Vdc
Maximum Reverse Leakage Current (300 μs Pulse Minimum , T _A = 25°C)	() $V_R = 20V$ () $V_R = 75V$ () $V_R = max rated$	I _{R1} I _{R2} I _{R3}	150 200 750	nA
Maximum Reverse Leakage Current (300 μs Pulse Minimum , T _A = 125°C)	() $V_{R} = 20V$ () $V_{R} = 75V$ () $V_{R} = max rated$	I _{R4} I _{R5} I _{R6}	60 85 200	μA
Maximum Junction Capacitance $(T_A = 25^{\circ}C, f = 1MHz) V_R = 0V$		C _{J1}	12	pf
Maximum Junction Capacitance ($T_A = 25^{\circ}C$, f = 1MHz) $V_R = 1.5V$		C_{J2}	10	pf
Maximum Junction Capacitance $(T_A = 25^{\circ}C, f = 1MHz) V_R = 10V$		C _{J3}	6	pf
Maximum Reverse Recovery Time ($I_F = 50 \text{ mA}, I_R = 100 \text{ mA}, I_{RR} = 25 \text{ mA}$)		t _{rr}	10	nsec
Maximum Forward Recovery Time (I _F = 50 mA)		t _{fr}	25	nsec

		AXIAL		
	DIM	MIN	MAX	
	Α	.056"	.075"	
	В	.125"	.140"]
	С	.017"	.020"]
	D	1.00"	1.50"]
D	B		øc ~	

	SMS	
DIM	MIN	MAX
Α	.070"	.085"
В	.168"	.200"
С	.019"	.028"
D	.001"	





NOTE: All specifications are subject to change without notification. SCD's for these devices should be reviewed by SSDI prior to release. DATA SHEET #: RC0160D

DOC