



Solid State Devices, Inc.

14701 Firestone Blvd * La Mirada, Ca 90638
Phone: (562) 404-4474 * Fax: (562) 404-1773
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2R3S THRU 20R3S

**8 AMPS
20 – 200 VOLTS
35 nsec
HYPER FAST RECTIFIER**

Designer's Data Sheet

Part Number/Ordering Information ^{1/}

R3S

Screening^{3/} = Not Screened
TX = TX Level
TXV = TXV Level
S = S Level

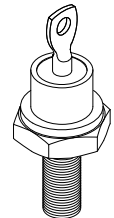
Family/Voltage

2 = 20V
3 = 30V
4 = 40V
5 = 50V
7 = 70V
10 = 100V
12 = 125V
15 = 150V
20 = 200V

- Features:**
- Hyper Fast Recovery: 35nsec Maximum
 - Low Forward Voltage Drop
 - Low Reverse Leakage Current
 - Single Chip Construction
 - Hermetically Sealed Package
 - Metalurgically Bonded Construction
 - TX, TXV, and S-Level Screening Available ^{2/}

Maximum Ratings ^{2/}	Symbol	Value	Units
Peak Repetitive Reverse Voltage	2R3S	20	Volts
	3R3S	30	
	4R3S	40	
	5R3S	50	
	7R3S	70	
	10R3S	100	
	12R3S	125	
	15R3S	150	
	20R3S	200	
Average Rectified Forward Current (Resistive Load, 60 Hz Sine Wave, T _A = 25 °C)	I_o	8	Amps
Peak Surge Current (8.3 ms Pulse, Half Sine Wave, T _A = 25 °C)	I_{FSM}	200	Amps
Operating & Storage Temperature	T_{OP} & T_{STG}	-65 to +175	°C
Maximum Total Thermal Resistance Junction to Case	R_{θJC}	1.5	°C/W

DO-4:



Notes:

- 1/ For ordering information, Price, Operating Curves, and Availability- Contact Factory.
- 2/ Unless Otherwise Specified, All Maximum Ratings/Electrical Characteristics @25°C.
- 3/ Screened to MIL-PRF-19500.



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Electrical Characteristics	Symbol	Max	Units
Instantaneous Forward Voltage Drop ($I_F=8A$, $T_A=25^\circ C$, 300 μ sec pulse)	V_F	0.90	V_{DC}
Reverse Leakage Current (Rated V_R , $T_A=25^\circ C$, 300 μ sec pulse minimum)	I_{R1}	100	μA
Reverse Leakage Current (Rated V_R , $T_A=100^\circ C$, 300 μ sec pulse minimum)	I_{R2}	2.0	mA
Reverse Recovery Time ($T_A=25^\circ C$, $I_F = 0.5A$, $I_R = 1.0A$, $I_{RR} = 0.25A$)	t_{RR}	35	nsec
Typical Junction Capacitance ($V_R = 10V_{DC}$, $T_A = 25^\circ C$, $f = 1MHz$)	C_J	300	pF

Notes:

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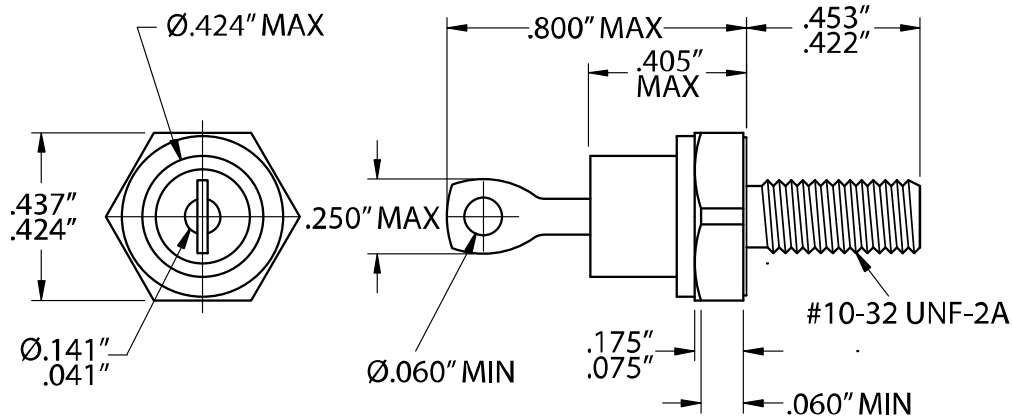
2/ Screened to MIL-PRF-19500.

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Case Outline: DO-4

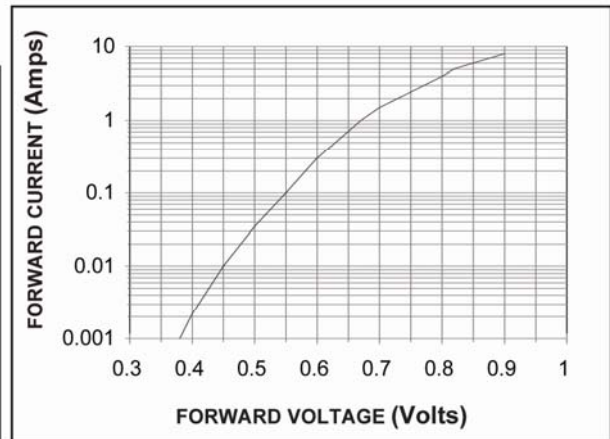
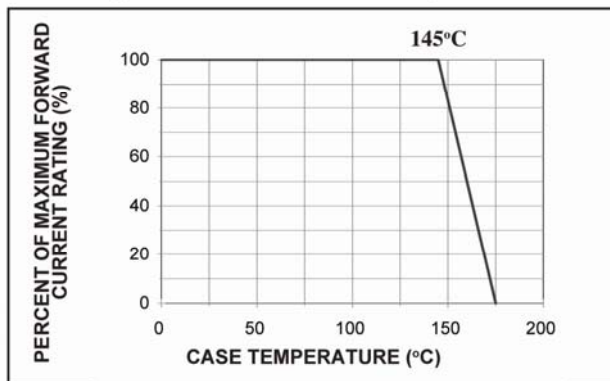
Stud: Cathode

Lead: Anode



TYPICAL OPERATING CURVES

$T_A = 25^\circ C$ Unless otherwise specified



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

DATA SHEET #: RC0029D

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