

Solid State Devices, Inc.

20 = 200V

14701 Firestone Blvd * La Mirada, Ca 90638 Phone: (562) 404-4474 * Fax: (562) 404-1773 ssdi@ssdi-power.com * www.ssdi-power.com

Designer's Data Sheet Part Number/Ordering Information 1/ R3S Screening^{3/} = Not Screened TX = TX LevelTXV = TXV Level S = S Level Family/Voltage 2 = 20V3 = 30V4 = 40V5 = 50V7 = 70V10 = 100V12 = 125V15 = 150V

2R3S THRU 20R3S

8 AMPS 20 – 200 VOLTS 35 nsec HYPER FAST RECTIFIER

Features:

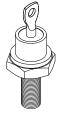
- Hyper Fast Recovery: 35nsec Maximum
- Low Forward Voltage Drop
- Low Reverse Leakage Current
- Single Chip Construction
- Hermetically Sealed Package
- Metalurgically Bonded Construction
- TX, TXV, and S-Level Screening Available 2/

Maximum Ratings ^{2/}		Symbol	Value	Units
Peak Repetitive Reverse Voltage	2R3S 3R3S 4R3S 5R3S 7R3S 10R3S 12R3S 15R3S 20R3S	V _{RRM} V _{RWM} V _R	20 30 40 50 70 100 125 150 200	Volts
Average Rectified Forward Current (Resistive Load, 60 Hz Sine Wave, T _A = 25 °C)		Io	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		$R_{ heta JC}$	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.





2R3S THRU 20R3S

14701 Firestone Blvd * La Mirada, CA 90638 Phone: (562) 404-4474 * Fax: (562) 404-1773 ssdi@ssdi-power.com * www.ssdi-power.com

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

Notes:

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

