

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

1N6690-1N6693 and 1N6690US-1N6693US

20 AMP
600-1200 Volts
75 nsec
ULTRA FAST RECTIFIER

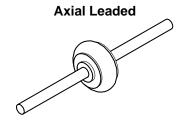
Features:

- Replaces DO-4 and DO-5
- Ultra Fast Recovery
- PIV to 1200 Volts
- Low Reverse Leakage
- Hermetically Sealed Void-Free Construction^{3/}
- Monolithic Single Chip Construction
- High Surge Rating
- Low Thermal Resistance
- Available in Surface Mount Versions (-US Suffix) and in Button Tab Mounting (See Data Sheet RU0129).
- TX, TXV, and S-Level Screening Available^{2/}

Maximum Ratings		Symbol	Value	Units
Peak Repetitive Reverse and DC Blocking Voltage	1N6690 & 1N6690US 1N6691 & 1N6691US 1N6692 & 1N6692US 1N6693 & 1N6693US	$egin{array}{c} V_{RRM} \ V_{RWM} \ V_{R} \end{array}$	600 800 1000 1200	Volts
Average Rectified Forward Current (Resistive Load, 60 Hz Sine Wave, T _A = 100°C)		Io	20 Am p	
Repetitive Peak Surge Current (8.3 ms Pulse, Half Sine Wave Superimposed on Io, Allow Junction to Reach Equilibrium Between Pulses, $T_A = 25^{\circ}C$)		$\mathbf{I}_{ ext{FSM}}$	375 Am p	
Operating & Storage Temperature		Top & Tstg	-65 to +175	°C
Maximum Thermal Resistance Junction to Leads, L = 3/8 " Junction to End Tab		$R_{ heta m JL} \ R_{ heta m JE}$	3.0 2.5	°C/W

Notes

- 1/ For Ordering Information, Price, Operating Curves, and Availability Contact Factory.
- 2/ Screening Based on MIL-PRF-19500. Specifics Available on Request.
- 3/ PIND Testing not Required on Void Free Devices per MIL-PRF-19500.



SMS



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

DATA SHEET #: RU0143D

DOC



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Electrical Characteristics		Symbol	Max	Units
Instantaneous Forward Voltage Drop (I _F = 20 Adc, 300-500 µs pulse)	$T_A = 25^{\circ}C$ $T_A = -55^{\circ}C$	$egin{array}{c} \mathbf{V_{F1}} \ \mathbf{V_{F2}} \end{array}$	1.9 2.2	Vdc
Reverse Leakage Current (Rated V _R , 300 µs pulse minimum)	$T_A = 25^{\circ}C$ $T_A = 100^{\circ}C$	$egin{array}{c} I_{R1} \ I_{R2} \end{array}$	10 2.0	μA mA
Junction Capacitance (V _R = 10 Vdc, T _A = 25°C, f = 1MHz)		C_{J}	250	pF
Reverse Recovery Time $(I_F = 500 \text{ mA}, I_R = 1A, I_{RR} = 250\text{mA}, T_A = 25^{\circ}\text{C})$		t _{rr}	75	nsec

