

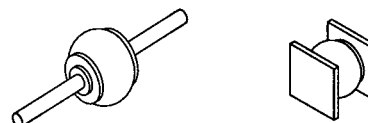


PRELIMINARY

SOLID STATE DEVICES, INC14849 Firestone Boulevard · La Mirada, CA 90638
Phone: (714) 670-SSDI (7734) · Fax: (714) 522-7424**1N6686-1N6687
thru
1N6686US-1N6687US****Designer's Data Sheet****FEATURES:**

- Replaces DO-4 and DO-5 (1N5816, 1N6306)
- High Current Version of 1N5811
- Hyper Fast Recovery
- PIV to 200 Volts
- Low Reverse Leakage Current
- Hermetically Sealed Void-Free Construction *
- Monolithic Single Chip Construction
- High Surge Rating
- Low Thermal Resistance
- Available in Surface Mount Versions (-US Suffix)

- TX, TXV, and Space Level Screening Available

**20 AMP
100-200 VOLTS
40 nsec
HYPER FAST
RECTIFIER****AXIAL & SURFACE MOUNT****MAXIMUM RATINGS**

RATING	SYMBOL	VALUE	UNIT
Peak Repetitive Reverse and DC Blocking Voltage 1N6686 & 1N6686US 1N6687 & 1N6687US	VRRM	100	Volts
	VRWM	200	
	VR		
Average Rectified Forward Current (Resistive Load, 60Hz, Sine Wave, TA=25°C)	IO	20	Amps
Peak Surge Current (8.3 ms Pulse, Half Sine Wave Superimposed on IO, allow junction to reach equilibrium between pulses, TA=25°C)	IFSM	375	Amps
Operating and storage temperature	Top & Tstg	-65 to +175	°C
Maximum Thermal Resistance Junction to Lead, L=3/8" (1N6686-1N6687) Junction to End Tab (1N6686US-1N6687US)	RθJL	4	°C/W
	RθJE	3.5	

* PIND Testing not Required on Void Free devices per MIL-S-19500

NOTE: All specifications are subject to change without notification.
SCD's for these devices should be reviewed by SSDI prior to release.**DATA SHEET#:RH0177 A****RMD**

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thru
N6686US-1N6687US**

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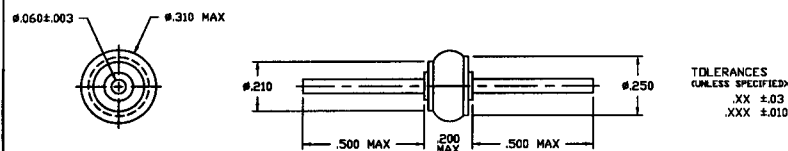
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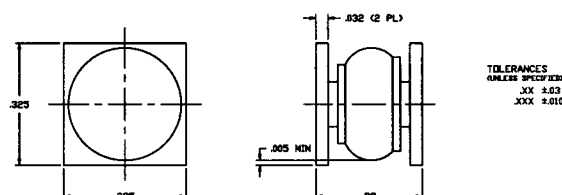
ELECTRICAL CHARACTERISTICS

CHARACTERISTICS	SYMBOL	MAXIMUM	UNIT
Instantaneous Forward Voltage Drop (IF = 5 Adc, TA=25°C, 300μs Pulse) (IF =20 Adc, TA=25°C, 300μs Pulse) (IF =70 Adc, TA=25°C, 300μs Pulse)	VF	0.78 0.875 1.0	Vdc
Instantaneous Forward Voltage Drop (IF = 5 Adc, TA= - 65°C, 300μs Pulse)	VF	1.0	Vdc
Reverse Leakage Current (Rated VR, TA=25°C, 300μs pulse minimum)	IR	50	μA
Reverse Leakage Current (Rated VR, TA=100°C, 300μs pulse minimum)	IR	10	mA
Junction Capacitance (VR = 10 Vdc, TA=25°C, f= 1 MHz)	CJ	350	pf
Reverse Recovery Time (IF=500mA, IR=1 A, IRR=250mA, TA=25°C)	trr	40	nsec

SE OUTLINE: AXIAL



CASE OUTLINE: SURFACE MOUNT



TYPICAL OPERATING CURVES

TA=25°C Unless otherwise specified

