



PRELIMINARY

SOLID STATE DEVICES, INC

14849 Firestone Boulevard · La Mirada, CA 90638  
Phone: (714) 670-SSDI (7734) · Fax: (714) 522-7424

**SDR612.  
thru  
SDR618**

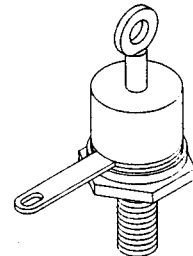
**15 AMP  
200-800 VOLTS  
45-60 nsec  
ULTRA FAST  
RECTIFIER**

## Designer's Data Sheet

### FEATURES:

- Ultrafast Recovery: 45-60 nsec Maximum
- Low Reverse Leakage
- Hermetically Sealed
- Single Chip Construction
- Low Forward Voltage Drop
- High Surge Current
- Isolated Stud Eliminates the need for mounting hardware
- TX and TXV Screening Available

DO-10



## MAXIMUM RATINGS

RATING	SYMBOL	VALUE	UNIT
Peak Repetitive Reverse and DC Blocking Voltage SDR612 SDR613 SDR614 SDR615 SDR616 SDR617 SDR618	VRRM VRWM VR	200 300 400 500 600 700 800	Volts
Average Rectified Forward Current (Resistive Load, 60Hz, Sine Wave, TA=25°C)	IO	15	Amps
Peak Surge Current (8.3 ms Pulse, Half Sine Wave, TA=25°C)	IFSM	250	Amps
Operating and storage temperature	Top & Tstg	-65 to +175	°C
Maximum Thermal Resistance Junction to Case	RθJC	3	°C/W

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

DATA SHEET #: RU0021 B

RMD

# SDR612 thru SDR618

PRELIMINARY



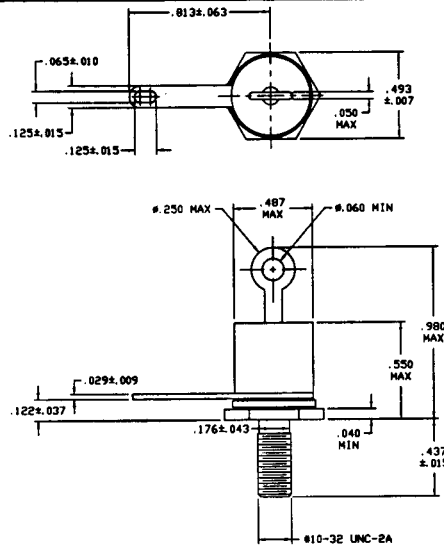
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## ELECTRICAL CHARACTERISTICS

CHARACTERISTICS		SYMBOL	MAXIMUM	UNIT
Instantaneous Forward Voltage Drop (IF = 15 Adc, TA=25°C, 300µs Pulse)	SDR612-615 SDR616-618	VF	1.3	Vdc
			1.8	
Instantaneous Forward Voltage Drop (IF = 15 Adc, TA=-55°C, 300µs Pulse)	SDR612-615 SDR616-618	VF	1.45 1.95	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	150	pf
Reverse Recovery Time (IF =500mA, IR = 1A, IRR=250mA, TA=25°C)	SDR612-615 SDR616 SDR617-618	trr	45 50 60	nsec

## CASE OUTLINE: DO-10



## TYPICAL OPERATING CURVES

TA=25°C Unless otherwise specified

