



PRELIMINARY

SOLID STATE DEVICES, INC

14849 Firestone Boulevard · La Mirada, CA 90638
Phone: (714) 670-SSDI (7734) · Fax: (714) 522-7424SDR612.
thru
SDR618

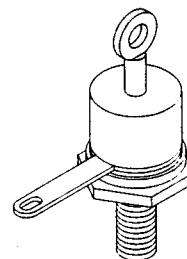
Designer's Data Sheet

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

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

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

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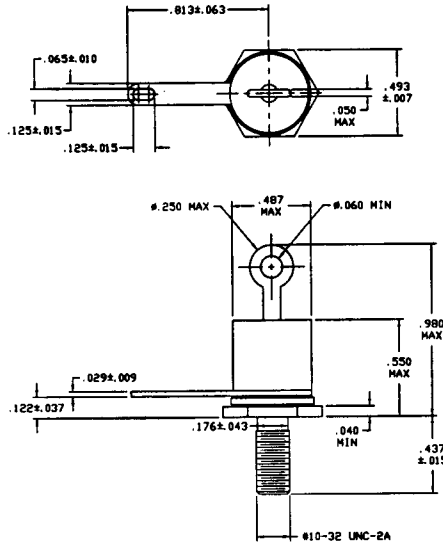
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ELECTRICAL CHARACTERISTICS

CHARACTERISTICS		SYMBOL	MAXIMUM	UNIT
Instantaneous Forward Voltage Drop ($I_F = 15 \text{ A dc}$, $T_A = 25^\circ\text{C}$, 300 μs Pulse)	SDR612-615 SDR616-618	V_F	1.3 1.8	Vdc
Instantaneous Forward Voltage Drop ($I_F = 15 \text{ A dc}$, $T_A = -55^\circ\text{C}$, 300 μs Pulse)	SDR612-615 SDR616-618	V_F	1.45 1.95	Vdc
Reverse Leakage Current (Rated V_R , $T_A = 25^\circ\text{C}$, 300 μs pulse minimum)		I_R	50	μA
Reverse Leakage Current (Rated V_R , $T_A = 100^\circ\text{C}$, 300 μs pulse minimum)		I_R	10	mA
Junction Capacitance ($V_R = 10 \text{ Vdc}$, $T_A = 25^\circ\text{C}$, $f = 1 \text{ MHz}$)		C_J	150	pf
Reverse Recovery Time ($I_F = 500 \text{ mA}$, $I_R = 1 \text{ A}$, $I_{RR} = 250 \text{ mA}$, $T_A = 25^\circ\text{C}$)	SDR612-615 SDR616 SDR617-618	t_{rr}	45 50 60	nsec

CASE OUTLINE: DO-10



TYPICAL OPERATING CURVES

$T_A = 25^\circ\text{C}$ Unless otherwise specified

