



PRELIMINARY

SOLID STATE DEVICES, INC

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

**SDR504
thru
SDR510**

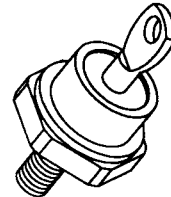
Designer's Data Sheet

FEATURES:

- Ultra Fast Recovery: 80 nsec Maximum
- Low Reverse Leakage
- Low Thermal Impedance
- High Surge Capability
- Hermetically Sealed
- For High Efficiency Applications
- TX, TXV and Space Level Screening Available

**50 AMP
400-1000 VOLTS
80 nsec
ULTRA FAST
RECTIFIER**

DO-5



MAXIMUM RATINGS

RATING	SYMBOL	VALUE	UNIT
Peak Repetitive Reverse and DC Blocking Voltage SDR504 SDR506 SDR508 SDR510	VRRM VRWM VR	400 600 800 1000	Volts
Average Rectified Forward Current (Resistive Load, 60Hz, Sine Wave, TA=25°C)	IO	50	Amps
Peak Surge Current (8.3 ms Pulse, Half Sine Wave, TA=25°C)	IFSM	625	Amps
Operating and storage temperature	Top & Tstg	-65 to +175	°C
Maximum Thermal Resistance Junction to Case	RθJC	1.0	°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 #: RU0049 A

RMD

SDR504 thru SDR510

PRELIMINARY



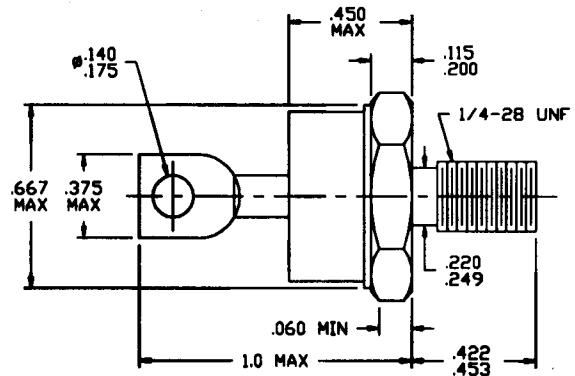
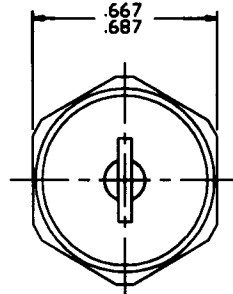
SOLID STATE DEVICES, INC

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

ELECTRICAL CHARACTERISTICS

CHARACTERISTICS	SYMBOL	MAXIMUM	UNIT
Instantaneous Forward Voltage Drop ($I_F = 50 \text{ A dc}$, $T_A = 25^\circ\text{C}$, $300\mu\text{s}$ Pulse)	V_F	1.7	Vdc
Instantaneous Forward Voltage Drop ($I_F = 50 \text{ A dc}$, $T_A = -55^\circ\text{C}$, $300\mu\text{s}$ Pulse)	V_F	1.85	Vdc
Reverse Leakage Current (Rated V_R , $T_A = 25^\circ\text{C}$, $300\mu\text{s}$ pulse minimum)	I_R	25	μA
Reverse Leakage Current (Rated V_R , $T_A = 100^\circ\text{C}$, $300\mu\text{s}$ pulse minimum)	I_R	8	mA
Junction Capacitance ($V_R = 10 \text{ Vdc}$, $T_A = 25^\circ\text{C}$, $f = 1 \text{ MHz}$)	C_J	700	pf
Reverse Recovery Time ($I_F = 500\text{mA}$, $I_R = 1\text{A}$, $I_{RR} = 250\text{mA}$, $T_A = 25^\circ\text{C}$)	t_{rr}	80	nsec

CASE OUTLINE: D0-5



Dimensions prior to solder dipping.

TYPICAL OPERATING CURVES

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

