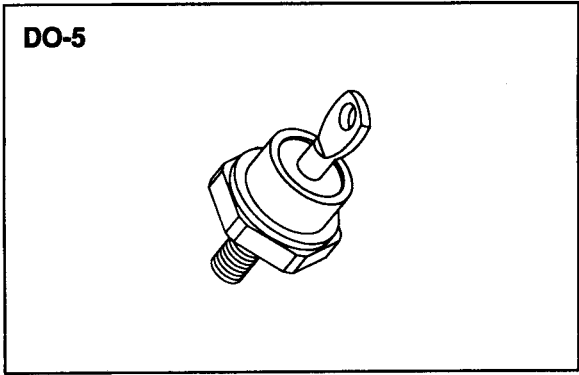


**SDR504
 thru
 SDR510**

Designer's Data Sheet

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

- 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



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

SDR504 thru SDR510

PRELIMINARY



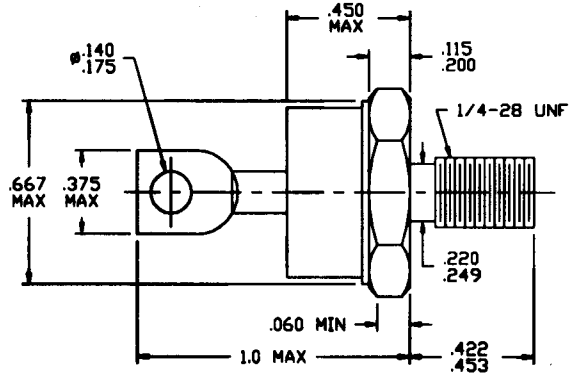
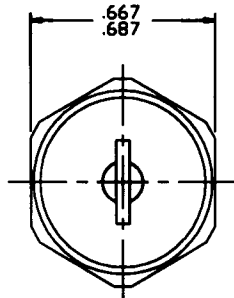
SOLID STATE DEVICES, INC

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Phone: (714) 670-SSDI (7734) · Fax: (714) 522-7424

ELECTRICAL CHARACTERISTICS

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

CASE OUTLINE: D0-5



Dimensions prior to solder dipping.

TYPICAL OPERATING CURVES

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

