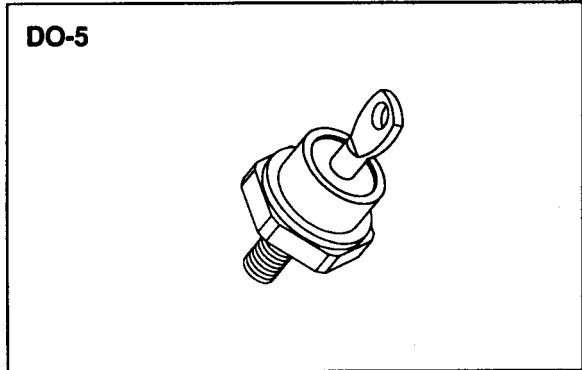


**SDR900  
 thru  
 SDR905**

**Designer's Data Sheet**

- FEATURES:**
- Ultra Fast Recovery: 50 nsec Maximum
  - Low Reverse Leakage
  - Hermetically Sealed
  - High Surge Current
  - Single Chip Construction
  - Available in isolated package
  - For High Efficiency Applications
  - TX, TXV and Space Level Screening Available

**30 AMP  
 50-500 VOLTS  
 50 nsec  
 ULTRA FAST  
 RECTIFIER**



**MAXIMUM RATINGS**

RATING	SYMBOL	VALUE	UNIT
Peak Repetitive Reverse and DC Blocking Voltage	VRRM	50	Volts
SDR900		100	
SDR901	VRWM	200	
SDR902		300	
SDR903	VR	400	
SDR904		500	
SDR905			
Average Rectified Forward Current (Resistive Load, 60Hz, Sine Wave, TA=25°C)	IO	30	Amps
Peak Surge Current (8.3 ms Pulse, Half Sine Wave, TA=25°C)	IFSM	350	Amps
Operating and storage temperature	Top & Tstg	-65 to +175	°C
Maximum Thermal Resistance Junction to Case	RθJC	1.0	°C/W

# SDR900 thru SDR905

PRELIMINARY



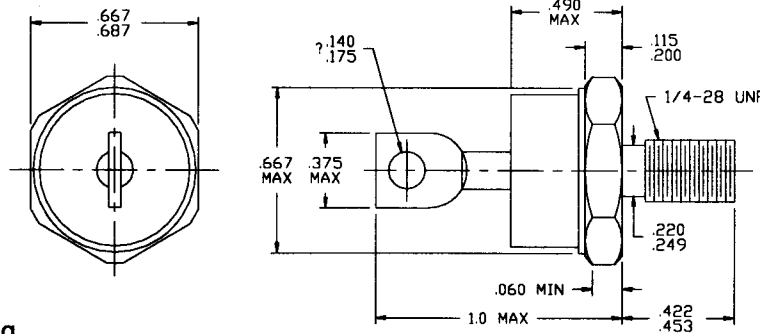
**SOLID STATE DEVICES, INC**

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 ( $I_F = 30 \text{ Adc}$ , $T_A = 25^\circ\text{C}$ , $300\mu\text{s}$ Pulse)	$V_F$	1.45	Vdc
Instantaneous Forward Voltage Drop ( $I_F = 30 \text{ Adc}$ , $T_A = -55^\circ\text{C}$ , $300\mu\text{s}$ Pulse)	$V_F$	1.6	Vdc
Reverse Leakage Current (Rated $V_R$ , $T_A = 25^\circ\text{C}$ , $300\mu\text{s}$ pulse minimum)	$I_R$	50	$\mu\text{A}$
Reverse Leakage Current (Rated $V_R$ , $T_A = 100^\circ\text{C}$ , $300\mu\text{s}$ pulse minimum)	$I_R$	10	mA
Junction Capacitance ( $V_R = 10 \text{ Vdc}$ , $T_A = 25^\circ\text{C}$ , $f = 1 \text{ MHz}$ )	$C_J$	250	pf
Reverse Recovery Time ( $I_F = 500\text{mA}$ , $I_R = 1\text{A}$ , $I_{RR} = 250\text{mA}$ , $T_A = 25^\circ\text{C}$ )	$t_{rr}$	50	nsec

## CASE OUTLINE: DO-5



## TYPICAL OPERATING CURVES

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

