

**Solid State Devices, Inc.**

14701 Firestone Blvd * La Mirada, CA 90638
 Phone: (562) 404-4474 * Fax: (562) 404-1773
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Designer's Data Sheet**Part Number/Ordering Information ^{1/}**

SDR30 _ H _ _

L Screening ^{2/}

_ = Not Screened

TX = TX Level

TXV = TXV Level

S = S Level

Package /61 = TO-61**L Recovery Time** H = Hyper Fast**L Family/Voltage** 010 = 100V

015 = 150V

020 = 200V

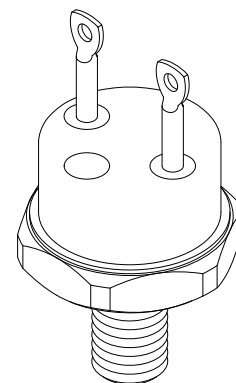
SDR30010H/61
thru
SDR30020H/61

30 AMP
HYPER FAST
RECTIFIER
100 - 200 VOLTS
35 nsec

FEATURES:

- Hyper Fast Recovery: 35 ns Maximum
- High Surge Rating
- Low Reverse Leakage Current
- Low Junction Capacitance
- Gold Eutectic Die Attach Available
- Ultrasonic Aluminum Wire Bonds
- TX, TXV, or Space Level Screening Available

Maximum Ratings		Symbol	Value	Units
Peak Repetitive Reverse and DC Blocking Voltage ^{3/}	SDR30010	V _{RRM}	100	Volts
	SDR30015	V _{RWM}	150	
	SDR30020	V _R	200	
Average Rectified Forward Current (Resistive Load, 60 Hz Sine Wave, T _C = 100°C)		I _O	30	Amps
Peak Surge Current (8.3 ms Pulse, Half Sine Wave, T _A = 25°C)		I _{FSM}	250	Amps
Operating & Storage Temperature		T _{OP} & T _{STG}	-65 to +200	°C
Maximum Total Thermal Resistance Junction to Case		R _{θJC}	1.5	°C/W

NOTES:^{1/} For ordering information, price, and availability, contact factory.^{2/} Screening based on MIL-PRF-19500. Screening flows available on request.^{3/} Higher voltages available.^{4/} Both anodes tied together.**TO-61**

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

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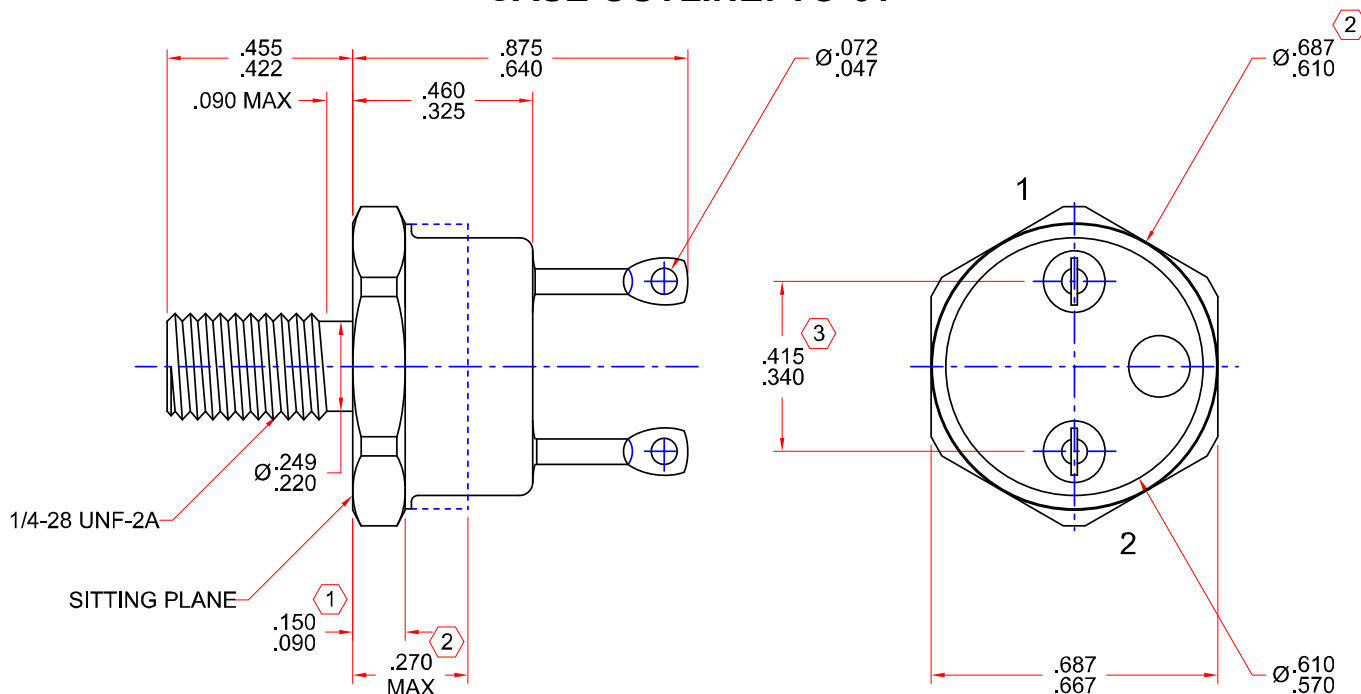
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SDR30010H/61 thru SDR30020H/61

Electrical Characteristic		Symbol	Typ	Max	Units
Instantaneous Forward Voltage Drop ($T_A = 25^\circ\text{C}$, 300 – 500 μsec Pulse)	$I_F = 30\text{ A}$	V_{F1}	1.10	1.20	V_{DC}
Instantaneous Forward Voltage Drop ($T_A = -55^\circ\text{C}$, 300 – 500 μsec Pulse)	$I_F = 30\text{ A}$	V_{F2}	1.20	1.30	V_{DC}
Reverse Leakage Current (100% of rated V_R , 300 μs pulse min.)	$T_A = 25^\circ\text{C}$ $T_A = 125^\circ\text{C}$	I_{R1} I_{R2}	0.05 15	10 100	μA
Reverse Recovery Time ($I_F = 0.5\text{ A}$, $I_R = 1\text{ A}$, $I_{RR} = 0.25\text{ A}$, $T_A = 25^\circ\text{C}$)		t_{RR}	30	35	nsec
Junction Capacitance ($T_A = 25^\circ\text{C}$, $f = 1\text{ MHz}$)	$V_R = 10\text{ V}_{DC}$	C_J	350	500	pF

CASE OUTLINE: TO-61



NOTES:

- (1) DIMENSION DOES NOT INCLUDE SEALING FLANGES.
- (2) PACKAGE CONTOUR OPTIONAL WITHIN DIMENSIONS SPECIFIED.
- (3) POSITION OF LEADS IN RELATION TO HEXAGON IS NOT CONTROLLED.

PIN ASSIGNMENT

Package	Stud	Pin 1	Pin 2
TO-61	N/C	Anode	Cathode

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