



**Solid State Devices, Inc.**

14701 Firestone Blvd \* La Mirada, Ca 90638  
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**SPD10192  
 Thru  
 SPD10198**

**35 Amp  
 FAST RECOVERY  
 RECTIFIER  
 800 - 1400 Volt  
 250 nsec**

**Designer's Data Sheet**

**Part Number/Ordering Information <sup>1/</sup>**  
 SPD10

├── Screening <sup>2/</sup>    \_\_\_ = Not Screened  
                           TX    = TX Level  
                           TXV = TXV Level  
                           S    = S Level

├── Pin Configuration    \_\_\_ = Normal (Cathode to Stud)  
                                   R = Reverse (Anode to Stud)  
                                   (See Table 1)

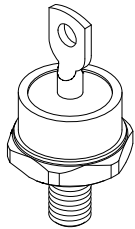
└── Family/Voltage

192 = 800V  
 194 = 1000V  
 195 = 1100V  
 196 = 1200V  
 197 = 1300V  
 198 = 1400V

- Features:**
- Fast Recovery: 250 nsec maximum
  - PIV to 1400V
  - Low Reverse Leakage Current
  - Hermetically Sealed
  - Single Chip Construction
  - High Surge Rating
  - Low Thermal Resistance
  - Ultra Fast and Hyper Fast Recovery Versions Available\*
  - For Reverse Polarity Add Suffix "R"
  - TX, TXV, and S-Level Screening Available <sup>2/</sup>
- \*Contact Factory

Maximum Ratings	Symbol	Value	Units
Peak Repetitive Reverse and DC Blocking Voltage	SPD10192 SPD10194 SPD10195 SPD10196 SPD10197 SPD10198 $V_{RRM}$ $V_{RWM}$ $V_R$	800 1000 1100 1200 1300 1400	Volts
Average Rectified Forward Current (Resistive Load, 60 Hz Sine Wave, $T_A = 25^\circ\text{C}$ )	$I_o$	35	Amps
Peak Surge Current (8.3 ms Pulse, Half Sine Wave, $T_A = 25^\circ\text{C}$ )	$I_{FSM}$	500	Amps
Operating & Storage Temperature	$T_{OP}$ & $T_{STG}$	-65 to +150	$^\circ\text{C}$
Maximum Total Thermal Resistance Junction to Case	$R_{\theta JC}$	1.0	$^\circ\text{C/W}$

DO-5:



**Notes:**

- 1/ For ordering information, price, operating curves, and availability- contact factory.  
 2/ Screening based on MIL-PRF-19500. Screening flows available on request.



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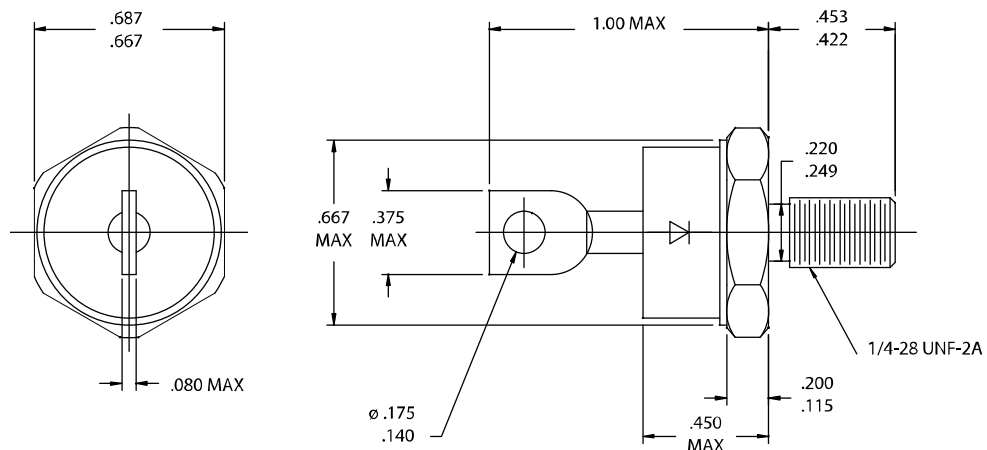
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Electrical Characteristics	Symbol	Max	Units
<b>Instantaneous Forward Voltage Drop</b> ( $I_F = 35 \text{ A dc}$ , $T_A = 25 \text{ }^\circ\text{C}$ , 300 $\mu\text{s}$ pulse)	$V_F$	1.4	$V_{DC}$
<b>Instantaneous Forward Voltage Drop</b> ( $I_F = 35 \text{ A dc}$ , $T_A = -55 \text{ }^\circ\text{C}$ , 300 $\mu\text{s}$ pulse)	$V_F$	1.6	$V_{DC}$
<b>Reverse Leakage Current</b> (Rated $V_R$ , $T_A = 25 \text{ }^\circ\text{C}$ , 300 $\mu\text{s}$ pulse minimum)	$I_R$	20	$\mu\text{A}$
<b>Reverse Leakage Current</b> (Rated $V_R$ , $T_A = 100 \text{ }^\circ\text{C}$ , 300 $\mu\text{s}$ pulse minimum)	$I_R$	2	<b>mA</b>
<b>Reverse Recovery Time</b> ( $I_F = 500 \text{ mA}$ , $I_R = 1 \text{ Amp}$ , $I_{RR} = 250 \text{ mA}$ , $T_A = 25 \text{ }^\circ\text{C}$ )	$t_{RR}$	250	<b>nsec</b>
<b>Junction Capacitance</b> ( $V_R = 10V_{DC}$ , $T_A = 25^\circ\text{C}$ , $f = 1\text{MHz}$ )	$C_J$	250	<b>pF</b>

Code	Configuration	Terminal	Stud
—	Normal	Anode	Cathode
<b>R</b>	Reverse	Cathode	Anode

**DO-5 Outline (Normal Pin Configuration Shown):**



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

**DATA SHEET #: RC0132A**

**DOC**