

Sxx08xSx & Sxx08x Series



| Agency Approval | |
|-----------------|--------------------|
| Agency | Agency File Number |
| | E71639* |

* - L Package Only

| Main Features | | |
|-------------------|-------------|------|
| Symbol | Value | Unit |
| $I_{T(RMS)}$ | 8 | A |
| V_{DRM}/V_{RRM} | 400 to 1000 | V |
| I_{GT} | 0.2 to 15 | mA |

| Additional Information | | |
|------------------------|------------------|----------------|
| Datasheet | Resources | Samples |

Description

This Sxx08x SCR series is ideal for uni-directional switch applications such as phase control, heating, motor speed controls, converters/rectifiers and capacitive discharge ignitions.

These SCRs have a low gate current trigger level of 0.2 to 15 mA at approximately 1.5V, with a sensitive version of this series having a gate trigger current less than 500µA. The sensitive gate SCR version is easily triggered by sense coils, proximity switches, and microprocessors.

Features & Benefits

- Halogen-free and RoHS-compliant
- Glass – passivated junctions
- Voltage capability up to 1000 V
- Surge capability up to 100 A at 60 Hz half cycle
- L - Package is UL Recognized for 2500Vrms

Applications

Typical applications are capacitive discharge systems for strobe lights, nailers, staplers and gas engine ignition. Also AC control & rectification for power tools, home/brown goods, white goods appliances and 2-wheeler rectifier/battery regulators.

Internally constructed isolated packages are offered for ease of heat sinking with highest isolation voltage.

Schematic Symbol



Absolute Maximum Ratings — Sensitive SCRs

| Symbol | Parameter | Test Conditions | | Value | Unit |
|--------------|---|--|--------------------------|------------|------------------------|
| $I_{T(RMS)}$ | RMS on-state current | Sxx08LSy | $T_c = 80^\circ\text{C}$ | 8 | A |
| | | Sxx08RSy/Sxx08NSy Sxx08DSy Sxx08Vsy | $T_c = 95^\circ\text{C}$ | | |
| $I_{T(AV)}$ | Average on-state current | Sxx08LSy | $T_c = 80^\circ\text{C}$ | 5.1 | A |
| | | Sxx08RSy/Sxx08NSy Sxx08DSy Sxx08Vsy | $T_c = 95^\circ\text{C}$ | | |
| I_{TSM} | Peak non-repetitive surge current | single half cycle; $f = 50\text{Hz}$; T_j (initial) = 25°C | | 83 | A |
| | | single half cycle; $f = 60\text{Hz}$; T_j (initial) = 25°C | | 100 | |
| I^2t | I^2t Value for fusing | $t_p = 8.3 \text{ ms}$ | | 41 | A^2s |
| di/dt | Critical rate of rise of on-state current | $f = 60 \text{ Hz}; T_j = 110^\circ\text{C}$ | | 70 | $\text{A}/\mu\text{s}$ |
| I_{GTM} | Peak gate current | $T_j = 110^\circ\text{C}$ | | 1.6 | A |
| $P_{G(AV)}$ | Average gate power dissipation | $T_j = 110^\circ\text{C}$ | | 0.4 | W |
| T_{stg} | Storage temperature range | | | -40 to 150 | $^\circ\text{C}$ |
| T_j | Operating junction temperature range | | | -40 to 110 | $^\circ\text{C}$ |

Note: xx = voltage, y = sensitivity

Absolute Maximum Ratings — Standard SCRs

| Symbol | Parameter | Test Conditions | | Value | Unit |
|--------------|---|--|---------------------------|------------|------------------------|
| $I_{T(RMS)}$ | RMS on-state current | Sxx08L | $T_c = 100^\circ\text{C}$ | 8 | A |
| | | Sxx08R/Sxx08N Sxx08D Sxx08V | $T_c = 110^\circ\text{C}$ | | |
| $I_{T(AV)}$ | Average on-state current | Sxx08L | $T_c = 100^\circ\text{C}$ | 5.1 | A |
| | | Sxx08R/Sxx08N Sxx08D Sxx08V | $T_c = 110^\circ\text{C}$ | | |
| I_{TSM} | Peak non-repetitive surge current | single half cycle; $f = 50\text{Hz}$; T_j (initial) = 25°C | | 83 | A |
| | | single half cycle; $f = 60\text{Hz}$; T_j (initial) = 25°C | | 100 | |
| I^2t | I^2t Value for fusing | $t_p = 8.3 \text{ ms}$ | | 41 | A^2s |
| di/dt | Critical rate-of-rise of on-state current | $f = 60 \text{ Hz}; T_j = 125^\circ\text{C}$ | | 100 | $\text{A}/\mu\text{s}$ |
| I_{GM} | Peak gate current | $T_j = 125^\circ\text{C}$ | | 2 | A |
| $P_{G(AV)}$ | Average gate power dissipation | $T_j = 125^\circ\text{C}$ | | 0.5 | W |
| T_{stg} | Storage temperature range | | | -40 to 150 | $^\circ\text{C}$ |
| T_j | Operating junction temperature range | | | -40 to 125 | $^\circ\text{C}$ |

Note: xx = voltage

Electrical Characteristics ($T_J = 25^\circ\text{C}$, unless otherwise specified) – Sensitive SCRs

| Symbol | Test Conditions | | Value | | | | Unit |
|-----------|---|------|----------|----------|----------|---------|------------------|
| | | | Sxx08xS1 | Sxx08xS2 | Sxx08xS3 | Sxx08x4 | |
| I_{GT} | $V_D = 6\text{V}$ $R_L = 100\ \Omega$ | MAX. | 50 | 200 | 500 | 100 | μA |
| V_{GT} | $V_D = 6\text{V}$ $R_L = 100\ \Omega$ | MAX. | 0.8 | | | | V |
| dv/dt | $V_D = V_{DRM}$; $R_{GK} = 1\text{k}\Omega$; $T_J = 110^\circ\text{C}$ | TYP. | 8 | | | | V/ μs |
| V_{GD} | $V_D = V_{DRM}$ $R_L = 3.3\ \text{k}\Omega$ $T_J = 110^\circ\text{C}$ | MIN. | 0.2 | | | | V |
| V_{GRM} | $I_{GR} = 10\ \mu\text{A}$ | MIN. | 6 | | | | V |
| I_H | $I_T = 20\text{mA}$ (initial) | MAX. | 4 | 6 | 8 | 5 | mA |
| t_q | $I_T = 2\text{A}$; $t_p = 50\ \mu\text{s}$; dv/dt=5V/ μs ; di/dt=-30A/ μs | MAX. | 75 | 50 | 45 | 60 | μs |
| t_{gt} | $I_G = 2 \times I_{GT}$ PW = 15 μs $I_T = 12\text{A}$ | TYP. | 3 | 4 | 5 | 4 | μs |

Note: xx = voltage x = package

Electrical Characteristics ($T_J = 25^\circ\text{C}$, unless otherwise specified) – Standard SCRs

| Symbol | Test Conditions | | | Value | Unit |
|----------|---|------|------|--------|------------------|
| | | | | Sxx08x | |
| I_{GT} | $V_D = 12\text{V}$ $R_L = 60\ \Omega$ | | MAX. | 15 | mA |
| V_{GT} | $V_D = 12\text{V}$ $R_L = 60\ \Omega$ | | MAX. | 1.5 | V |
| dv/dt | $V_D = V_{DRM}$; gate open; $T_J = 100^\circ\text{C}$ | 400V | MIN. | 350 | V/ μs |
| | | 600V | | 300 | |
| | | 800V | | 250 | |
| | $V_D = V_{DRM}$; gate open; $T_J = 125^\circ\text{C}$ | 400V | | 100 | |
| | | 600V | | 250 | |
| | | 800V | | 225 | |
| V_{GD} | $V_D = V_{DRM}$ $R_L = 3.3\ \text{k}\Omega$ $T_J = 125^\circ\text{C}$ | | MIN. | 0.2 | V |
| I_H | $I_T = 200\text{mA}$ (initial) | | MAX. | 30 | mA |
| t_q | $I_T = 2\text{A}$; $t_p = 50\ \mu\text{s}$; dv/dt=5V/ μs ; di/dt=-30A/ μs | | MAX. | 35 | μs |
| t_{gt} | $I_G = 2 \times I_{GT}$ PW = 15 μs $I_T = 16\text{A}$ | | TYP. | 2 | μs |

Note: xx = voltage x = package

Static Characteristics

| Symbol | Test Conditions | | Value | Unit |
|---------------------------|---|---------------------------|------------|------|
| V_{TM} | $I_T = 16\text{A}$; $t_p = 380\ \mu\text{s}$ | | MAX. | 1.6 |
| I_{DRM} / I_{RRM} | Sxx08xyy | $T_J = 25^\circ\text{C}$ | 400 - 600V | 5 |
| | | $T_J = 110^\circ\text{C}$ | 400 - 600V | 250 |
| | Sxx08x | $T_J = 25^\circ\text{C}$ | 400 - 800V | 10 |
| | | | 1000V | 20 |
| | | $T_J = 100^\circ\text{C}$ | 400 - 800V | 200 |
| | | | 1000V | 3000 |
| $T_J = 125^\circ\text{C}$ | 400 - 800V | 500 | | |

Note: xx = voltage, x = package, yy = sensitivity

Thermal Resistances

| Symbol | Parameter | Value | Unit | |
|-------------------|-----------------------|---------------------|------|------|
| $R_{\theta(J-C)}$ | Junction to case (AC) | Sxx08RSy / Sxx08NSy | 1.8 | °C/W |
| | | Sxx08LSy | 3.4 | |
| | | Sxx08VSY | 2.1 | |
| | | Sxx08DSy | 1.5 | |
| | | Sxx08R / S xx08N | 1.8 | |
| | | Sxx08L | 3.4 | |
| | | Sxx08V | 2.0 | |
| | | Sxx08D | 1.5 | |
| $R_{\theta(J-A)}$ | Junction to ambient | Sxx08RSy | 40 | °C/W |
| | | Sxx08LSy | 65 | |
| | | Sxx08VSY | 85 | |
| | | Sxx08R | 40 | |
| | | Sxx08L | 50 | |
| | | Sxx08V | 70 | |

Note: xx = voltage, y = sensitivity

Figure 1: Normalized DC Gate Trigger Current vs. Junction Temperature (Sensitive SCR)



Figure 2: Normalized DC Gate Trigger Current vs. Junction Temperature (Standard SCR)

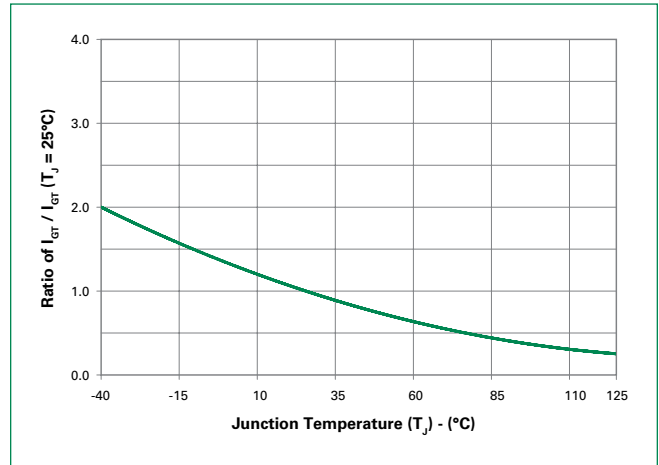


Figure 3: Normalized DC Gate Trigger Voltage vs. Junction Temperature



Figure 4: Normalized DC Holding Current vs. Junction Temperature

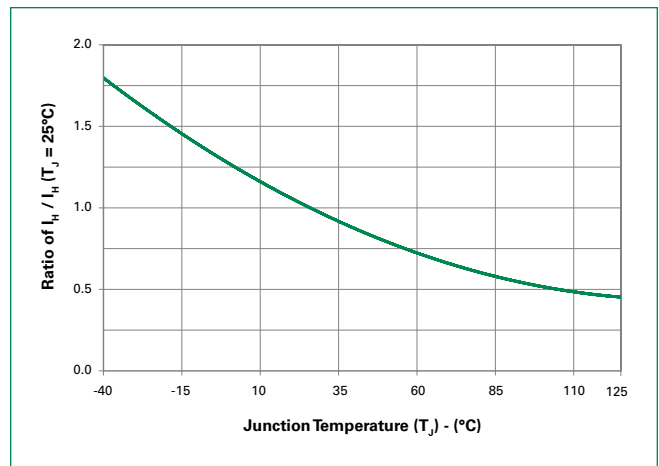


Figure 5: On-State Current vs. On-State Voltage (Typical)

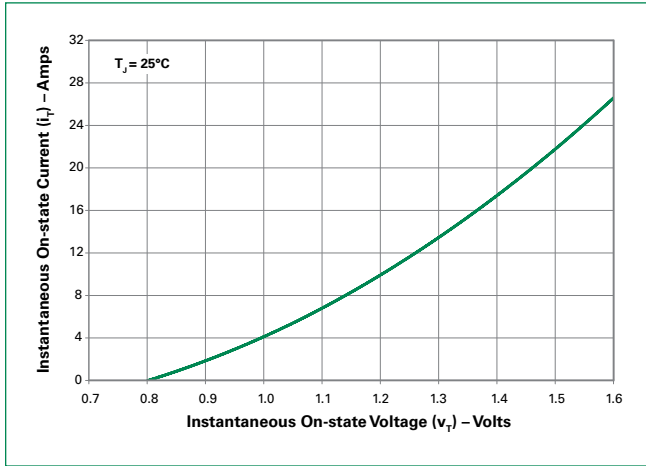


Figure 6: Power Dissipation (Typical) vs. RMS On-State Current



Figure 7: Maximum Allowable Case Temperature vs. RMS On-State Current

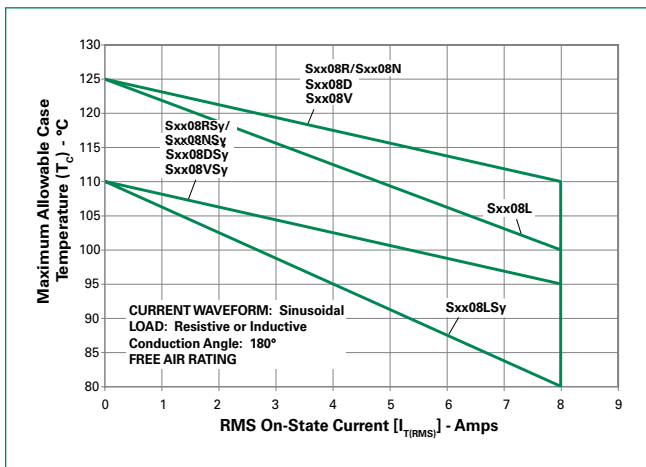


Figure 8: Maximum Allowable Case Temperature vs. Average On-State Current



Figure 9: Maximum Allowable Ambient Temperature vs. RMS On-State Current

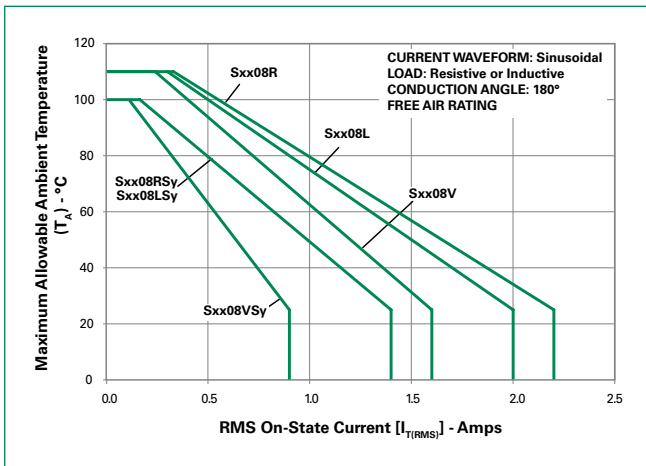


Figure 10: Maximum Allowable Ambient Temperature vs. Average On-State Current



Note: xx = voltage, y = sensitivity

Figure 11: Peak Capacitor Discharge Current



Figure 12: Peak Capacitor Discharge Current Derating



Figure 13-1: Typical DC Gate Trigger Current with R_{GK} vs. Junction Temperature for S6008xS2



Figure 13-2: Typical DC Gate Trigger Current with R_{GK} vs. Junction Temperature for S6008xS3



Figure 14-1: Typical DC Holding Current with R_{GK} vs. Junction Temperature for S6008xS2



Figure 14-1: Typical DC Holding Current with R_{GK} vs. Junction Temperature for S6008xS3



Figure 15-1: Typical Static dv/dt with R_{GK} vs. Junction Temperature for S6008xS2

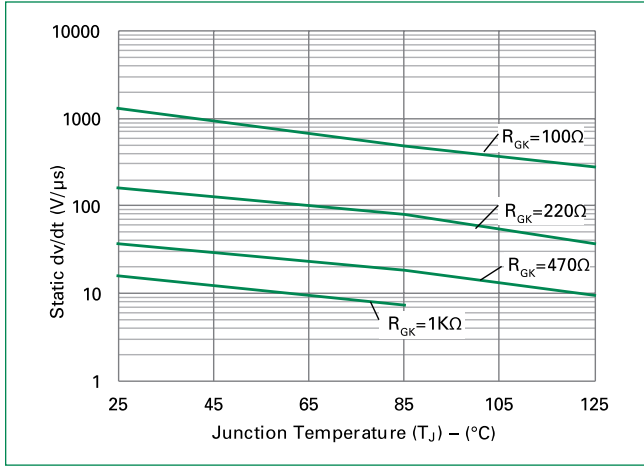


Figure 15-2: Typical Static dv/dt with R_{GK} vs. Junction Temperature for S6008xS3

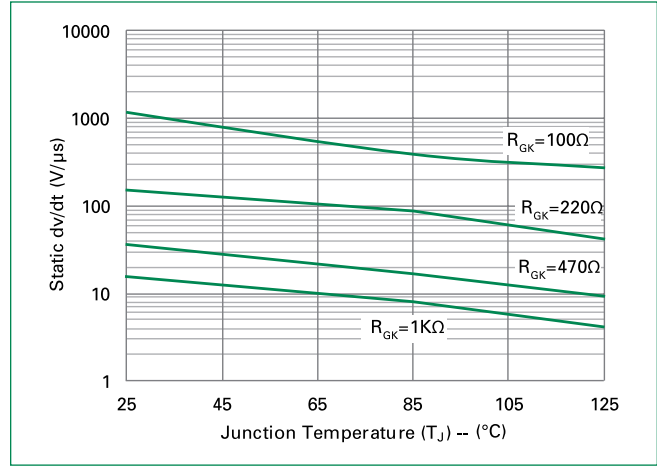


Figure 16-1: Typical turn off time with R_{GK} vs. Junction Temperature for S6008xS2



Figure 16-2: Typical DC Gate Trigger Current with R_{GK} vs. Junction Temperature for S6008xS3



Figure 17: Surge Peak On-State Current vs. Number of Cycles



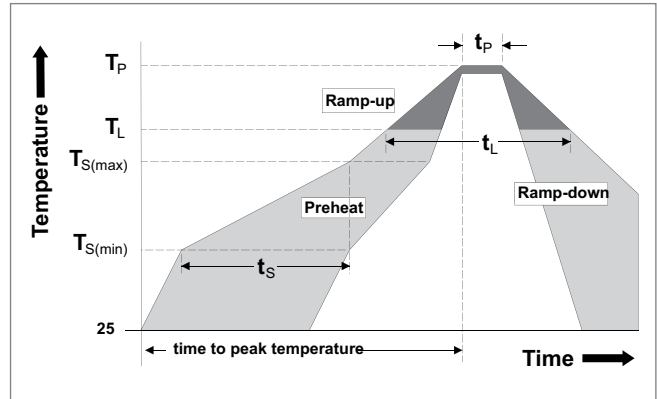
SUPPLY FREQUENCY: 60 Hz Sinusoidal
LOAD: Resistive
RMS On-State Current: [I_{TRMS}]: Maximum Rated Value at Specified Case Temperature

Notes:

1. Gate control may be lost during and immediately following surge current interval.
2. Overload may not be repeated until junction temperature has returned to steady-state rated value.

Soldering Parameters

| | | |
|--|------------------------------------|-------------------------|
| Reflow Condition | | Pb – Free assembly |
| Pre Heat | - Temperature Min ($T_{s(min)}$) | 150°C |
| | - Temperature Max ($T_{s(max)}$) | 200°C |
| | - Time (min to max) (t_s) | 60 – 180 secs |
| Average ramp up rate (Liquidus Temp) (T_L) to peak | | 5°C/second max |
| $T_{s(max)}$ to T_L - Ramp-up Rate | | 5°C/second max |
| Reflow | - Temperature (T_L) (Liquidus) | 217°C |
| | - Temperature (t_L) | 60 – 150 seconds |
| Peak Temperature (T_p) | | 260 ^{+0/-5} °C |
| Time within 5°C of actual peak Temperature (t_p) | | 20 – 40 seconds |
| Ramp-down Rate | | 5°C/second max |
| Time 25°C to peak Temperature (T_p) | | 8 minutes Max. |
| Do not exceed | | 280°C |



Physical Specifications

| | |
|------------------------|---|
| Terminal Finish | 100% Matte Tin-plated |
| Body Material | UL recognized epoxy meeting flammability rating 94V-0 |
| Lead Material | Copper Alloy |

Design Considerations

Careful selection of the correct component for the application's operating parameters and environment will go a long way toward extending the operating life of the Thyristor. Good design practice should limit the maximum continuous current through the main terminals to 75% of the component rating. Other ways to ensure long life for a power discrete semiconductor are proper heat sinking and selection of voltage ratings for worst case conditions. Overheating, overvoltage (including dv/dt), and surge currents are the main killers of semiconductors. Correct mounting, soldering, and forming of the leads also help protect against component damage.

Environmental Specifications

| Test | Specifications and Conditions |
|----------------------------------|--|
| AC Blocking | MIL-STD-750, M-1040, Cond A Applied Peak AC voltage @ 125°C for 1008 hours |
| Temperature Cycling | MIL-STD-750, M-1051, 100 cycles; -40°C to +150°C; 15-min dwell-time |
| Temperature/Humidity | EIA / JEDEC, JESD22-A101 1008 hours; 320V - DC; 85°C; 85% rel humidity |
| High Temp Storage | MIL-STD-750, M-1031, 1008 hours; 150°C |
| Low-Temp Storage | 1008 hours; -40°C |
| Resistance to Solder Heat | MIL-STD-750 Method 2031 |
| Solderability | ANSI/J-STD-002, category 3, Test A |
| Lead Bend | MIL-STD-750, M-2036 Cond E |

Dimensions — TO-220AB (R-Package) — Non-Isolated Mounting Tab Common with Center Lead



| Dimension | Inches | | Millimeters | |
|-----------|--------|-------|-------------|-------|
| | Min | Max | Min | Max |
| A | 0.380 | 0.420 | 9.65 | 10.67 |
| B | 0.105 | 0.115 | 2.67 | 2.92 |
| C | 0.230 | 0.250 | 5.84 | 6.35 |
| D | 0.590 | 0.620 | 14.99 | 15.75 |
| E | 0.142 | 0.147 | 3.61 | 3.73 |
| F | 0.110 | 0.130 | 2.79 | 3.30 |
| G | 0.540 | 0.575 | 13.72 | 14.61 |
| H | 0.025 | 0.035 | 0.64 | 0.89 |
| J | 0.195 | 0.205 | 4.95 | 5.21 |
| K | 0.095 | 0.105 | 2.41 | 2.67 |
| L | 0.060 | 0.075 | 1.52 | 1.91 |
| M | 0.085 | 0.095 | 2.16 | 2.41 |
| N | 0.018 | 0.024 | 0.46 | 0.61 |
| O | 0.178 | 0.188 | 4.52 | 4.78 |
| P | 0.045 | 0.060 | 1.14 | 1.52 |
| R | 0.038 | 0.048 | 0.97 | 1.22 |

Dimensions — TO-220AB (L-Package) — Isolated Mounting Tab



| Dimension | Inches | | Millimeters | |
|-----------|--------|-------|-------------|-------|
| | Min | Max | Min | Max |
| A | 0.380 | 0.420 | 9.65 | 10.67 |
| B | 0.105 | 0.115 | 2.67 | 2.92 |
| C | 0.230 | 0.250 | 5.84 | 6.35 |
| D | 0.590 | 0.620 | 14.99 | 15.75 |
| E | 0.142 | 0.147 | 3.61 | 3.73 |
| F | 0.110 | 0.130 | 2.79 | 3.30 |
| G | 0.540 | 0.575 | 13.72 | 14.61 |
| H | 0.025 | 0.035 | 0.64 | 0.89 |
| J | 0.195 | 0.205 | 4.95 | 5.21 |
| K | 0.095 | 0.105 | 2.41 | 2.67 |
| L | 0.060 | 0.075 | 1.52 | 1.91 |
| M | 0.085 | 0.095 | 2.16 | 2.41 |
| N | 0.018 | 0.024 | 0.46 | 0.61 |
| O | 0.178 | 0.188 | 4.52 | 4.78 |
| P | 0.045 | 0.060 | 1.14 | 1.52 |
| R | 0.038 | 0.048 | 0.97 | 1.22 |

Dimensions — TO-251AA (V/I-Package) — V/I-PAK Through Hole



| Dimension | Inches | | | Millimeters | | |
|-----------|--------|-------|-------|-------------|------|------|
| | Min | Typ | Max | Min | Typ | Max |
| A | 0.037 | 0.040 | 0.043 | 0.94 | 1.01 | 1.09 |
| B | 0.235 | 0.242 | 0.245 | 5.97 | 6.15 | 6.22 |
| C | 0.350 | 0.361 | 0.375 | 8.89 | 9.18 | 9.53 |
| D | 0.205 | 0.208 | 0.213 | 5.21 | 5.29 | 5.41 |
| E | 0.255 | 0.262 | 0.265 | 6.48 | 6.66 | 6.73 |
| F | 0.027 | 0.031 | 0.033 | 0.69 | 0.80 | 0.84 |
| G | 0.087 | 0.090 | 0.093 | 2.21 | 2.28 | 2.36 |
| H | 0.085 | 0.092 | 0.095 | 2.16 | 2.34 | 2.41 |
| I | 0.176 | 0.180 | 0.184 | 4.47 | 4.57 | 4.67 |
| J | 0.018 | 0.020 | 0.023 | 0.46 | 0.51 | 0.58 |
| K | 0.035 | 0.037 | 0.039 | 0.90 | 0.95 | 1.00 |
| L | 0.018 | 0.020 | 0.023 | 0.46 | 0.52 | 0.58 |
| P | 0.042 | 0.047 | 0.052 | 1.06 | 1.20 | 1.32 |
| Q | 0.034 | 0.039 | 0.044 | 0.86 | 1.00 | 1.11 |
| R | 0.034 | 0.039 | 0.044 | 0.86 | 1.00 | 1.11 |
| S | 0.074 | 0.079 | 0.084 | 1.86 | 2.00 | 2.11 |

Dimensions — TO-252AA (D-Package) — D-PAK Surface Mount



| Dimension | Inches | | | Millimeters | | |
|-----------|--------|-------|-------|-------------|------|------|
| | Min | Typ | Max | Min | Typ | Max |
| A | 0.037 | 0.040 | 0.043 | 0.94 | 1.01 | 1.09 |
| B | 0.235 | 0.243 | 0.245 | 5.97 | 6.16 | 6.22 |
| C | 0.106 | 0.108 | 0.113 | 2.69 | 2.74 | 2.87 |
| D | 0.205 | 0.208 | 0.213 | 5.21 | 5.29 | 5.41 |
| E | 0.255 | 0.262 | 0.265 | 6.48 | 6.65 | 6.73 |
| F | 0.027 | 0.031 | 0.033 | 0.69 | 0.80 | 0.84 |
| G | 0.087 | 0.090 | 0.093 | 2.21 | 2.28 | 2.36 |
| H | 0.085 | 0.092 | 0.095 | 2.16 | 2.33 | 2.41 |
| I | 0.176 | 0.179 | 0.184 | 4.47 | 4.55 | 4.67 |
| J | 0.018 | 0.020 | 0.023 | 0.46 | 0.51 | 0.58 |
| K | 0.035 | 0.037 | 0.039 | 0.90 | 0.95 | 1.00 |
| L | 0.018 | 0.020 | 0.023 | 0.46 | 0.51 | 0.58 |
| M | 0.000 | 0.000 | 0.004 | 0.00 | 0.00 | 0.10 |
| N | 0.021 | 0.026 | 0.027 | 0.53 | 0.67 | 0.69 |
| O | 0° | 0° | 5° | 0° | 0° | 5° |
| P | 0.042 | 0.047 | 0.052 | 1.06 | 1.20 | 1.32 |
| Q | 0.034 | 0.039 | 0.044 | 0.86 | 1.00 | 1.11 |

Product Selector

| Part Number | Voltage | | | | Gate Sensitivity | Type | Package |
|-------------|---------|------|------|-------|------------------|---------------|---------|
| | 400V | 600V | 800V | 1000V | | | |
| Sxx08RS2 | X | X | - | - | 0.2mA | Sensitive SCR | TO-220R |
| Sxx08LS2 | X | X | - | - | 0.2mA | Sensitive SCR | TO-220L |
| Sxx08VS2 | X | X | - | - | 0.2mA | Sensitive SCR | TO-251 |
| Sxx08DS2 | X | X | - | - | 0.2mA | Sensitive SCR | TO-252 |
| Sxx08RS3 | X | X | - | - | 0.5mA | Sensitive SCR | TO-220R |
| Sxx08LS3 | X | X | - | - | 0.5mA | Sensitive SCR | TO-220L |
| Sxx08VS3 | X | X | - | - | 0.5mA | Sensitive SCR | TO-251 |
| Sxx08DS3 | X | X | - | - | 0.5mA | Sensitive SCR | TO-252 |
| Sxx08R | X | X | X | X | 15mA | Standard SCR | TO-220R |
| Sxx08L | X | X | X | X | 15mA | Standard SCR | TO-220L |
| Sxx08V | X | X | X | X | 15mA | Standard SCR | TO-251 |
| Sxx08D | X | X | X | X | 15mA | Standard SCR | TO-252 |
| Sxx08NS2 | X | X | - | - | 0.2mA | Sensitive SCR | TO-263 |
| Sxx08NS3 | X | X | - | - | 0.5mA | Sensitive SCR | TO-263 |
| Sxx08N | X | X | X | X | 15mA | Standard SCR | TO-263 |
| Sxx08DS1 | - | X | - | - | 50µA | Sensitive SCR | TO-252 |
| Sxx08DS4 | - | X | - | - | 100µA | Sensitive SCR | TO-252 |

Note: xx = Voltage/10

Packing Options

| Part Number | Marking | Weight | Packing Mode | Base Quantity |
|--------------|------------|--------|------------------|--------------------|
| Sxx08L/RyyTP | Sxx08L/Ryy | 2.2 g | Tube | 1000 (50 per tube) |
| Sxx08DyyTP | Sxx08Dyy | 0.3 g | Tube | 750 (75 per tube) |
| Sxx08DyyRP | Sxx08Dyy | 0.3 g | Embossed Carrier | 2500 |
| Sxx08VyyTP | Sxx08Vyy | 0.4 g | Tube | 750 (75 per tube) |
| Sxx08L/RTP | Sxx08L/R | 2.2 g | Tube | 1000 (50 per tube) |
| Sxx08DTP | Sxx08D | 0.3 g | Tube | 750 (75 per tube) |
| Sxx08DRP | Sxx08D | 0.3 g | Embossed Carrier | 2500 |
| Sxx08NyyTP | Sxx08Nyy | 1.6g | Tube | 1000 (50 per tube) |
| Sxx08NyyRP | Sxx08Nyy | 1.6g | Embossed Carrier | 500 |
| Sxx08NTP | Sxx08N | 1.6g | Tube | 1000 (50 per tube) |
| Sxx08NRP | Sxx08N | 1.6g | Embossed Carrier | 500 |
| Sxx08VRP | Sxx08V | 0.4 g | Tube | 750 (75 per tube) |

Note: xx = Voltage/10; yy = Sensitivity

TO-252 Embossed Carrier Reel Pack (RP) Specifications

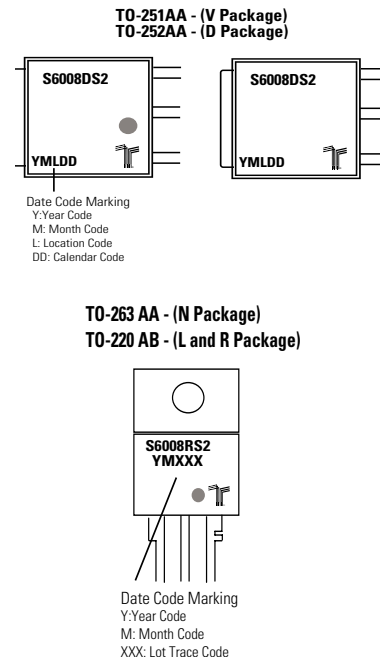
Meets all EIA-481-2 Standards



Part Numbering System




Part Marking System



Disclaimer Notice - Information furnished is believed to be accurate and reliable. However, users should independently evaluate the suitability of and test each product selected for their own applications. Littelfuse products are not designed for, and may not be used in, all applications. Read complete Disclaimer Notice at <http://www.littelfuse.com/disclaimer-electronics>.

Looking for pricing, stock, or lifecycle information?

Click below to explore more details on WIN SOURCE:

 [View S4008L on WIN SOURCE](#)

 [Littelfuse Inc. Information](#)

Optimize Your Supply Chain with WIN SOURCE Solutions

-  Global Sourcing Solution
-  Obsolete Management
-  Cost Control Management
-  Shortage Management
-  Alternative Solution
-  Excess Inventory Management