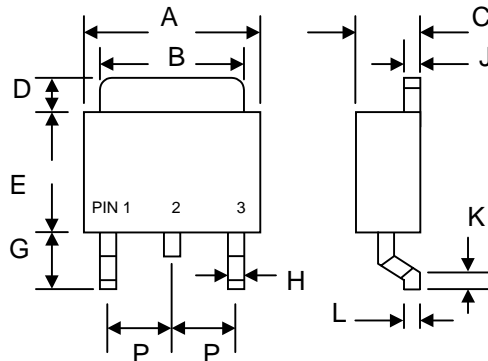


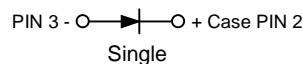
Features

- Schottky Barrier Chip
- Guard Ring Die Construction for Transient Protection
- High Current Capability
- Low Power Loss, High Efficiency
- High Surge Current Capability
- For Use in Low Voltage, High Frequency Inverters, Free Wheeling, and Polarity Protection Applications



Mechanical Data

- Case: Molded Plastic
- Terminals: Plated Leads Solderable per MIL-STD-750, Method 2026
- Polarity: Cathode Band
- Weight: 0.4 grams (approx.)
- Mounting Position: Any
- Marking: Type Number
- Standard Packaging: 16mm Tape (EIA-481)



| D PAK/TO-252AA | | |
|----------------------|--------------|------|
| Dim | Min | Max |
| A | 6.4 | 6.8 |
| B | 5.0 | 5.4 |
| C | 2.35 | 2.75 |
| D | — | 1.60 |
| E | 5.3 | 5.7 |
| G | 2.3 | 2.7 |
| H | 0.4 | 0.8 |
| J | 0.4 | 0.6 |
| K | 0.3 | 0.7 |
| L | 0.50 Typical | |
| P | — | 2.3 |
| All Dimensions in mm | | |

Maximum Ratings and Electrical Characteristics @T_A=25°C unless otherwise specified

Single Phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

| Characteristic | Symbol | SD 520S | SD 530S | SD 540S | SD 550S | SD 560S | SD 580S | SD 5100S | Unit |
|---|--|-------------|---------|---------|---------|---------|---------|----------|------|
| Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage | V _{RRM} V _{RRM} V _R | 20 | 30 | 40 | 50 | 60 | 80 | 100 | V |
| RMS Reverse Voltage | V _{R(RMS)} | 14 | 21 | 28 | 35 | 42 | 56 | 70 | V |
| Average Rectified Output Current @T _L = 75°C | I _O | 5.0 | | | | | | | A |
| Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method) | I _{FSM} | 100 | | | | | | | A |
| Forward Voltage (Note 1) @I _F = 5.0A | V _{FM} | 0.55 | | 0.75 | | 0.85 | | V | |
| Peak Reverse Current @T _A = 25°C At Rated DC Blocking Voltage @T _A = 100°C | I _{RM} | 0.2 20 | | | | | | | mA |
| Typical Junction Capacitance (Note 2) | C _j | 400 | | | | | | | pF |
| Typical Thermal Resistance Junction to Ambient | R _{θJA} | 50 | | | | | | | K/W |
| Operating Temperature Range | T _j | -50 to +125 | | | | | | | °C |
| Storage Temperature Range | T _{STG} | -50 to +150 | | | | | | | °C |

Note: 1. Mounted on P.C. Board with 14mm² (0.13mm thick) copper pad.
2. Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C.

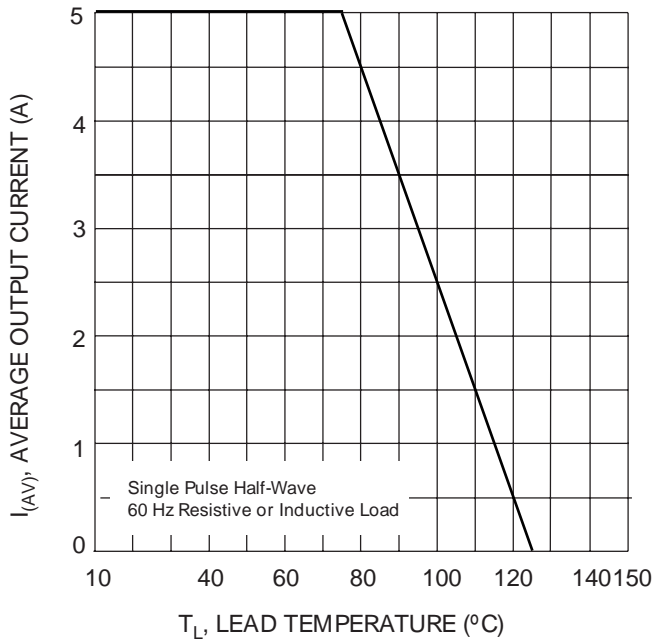


Fig. 1 Forward Current Derating Curve

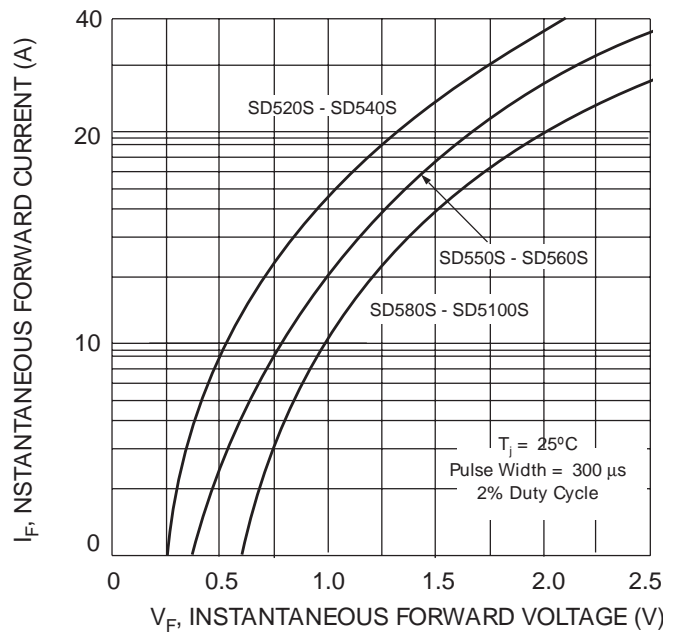


Fig. 2 Typical Forward Characteristics

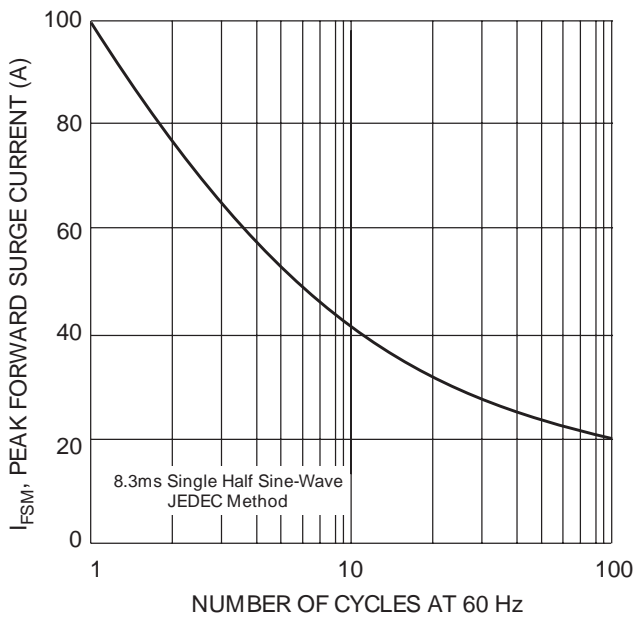


Fig. 3 Maximum Non-Repetitive Peak Fwd Surge Current

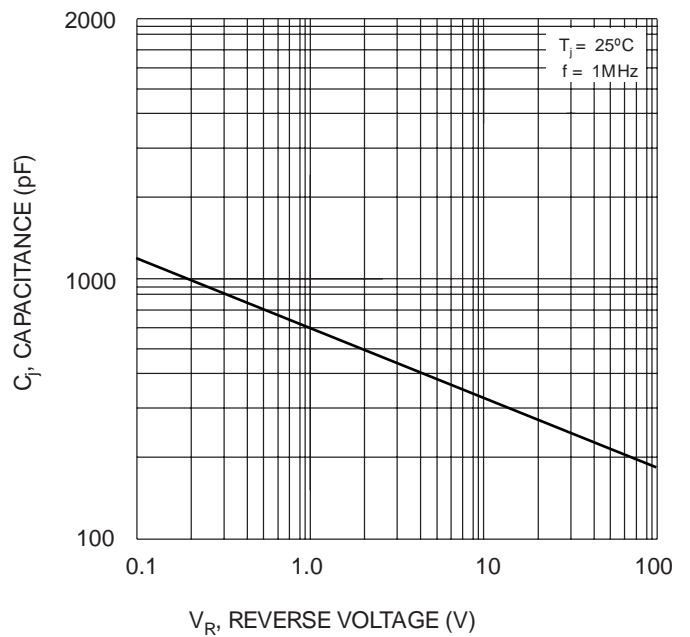


Fig. 4 Typical Junction Capacitance

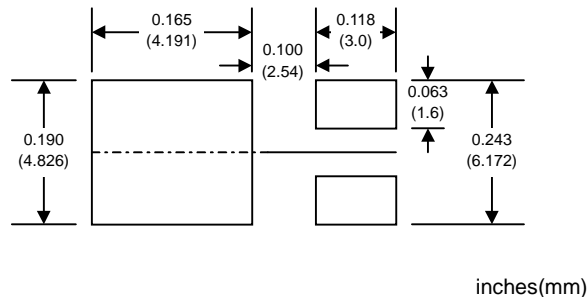
ORDERING INFORMATION

| Product No.♦ | Package Type | Shipping Quantity |
|--------------|--------------|-------------------|
| SD520S-T3 | DPAK | 2500/Tape & Reel |
| SD530S-T3 | DPAK | 2500/Tape & Reel |
| SD540S-T3 | DPAK | 2500/Tape & Reel |
| SD550S-T3 | DPAK | 2500/Tape & Reel |
| SD560S-T3 | DPAK | 2500/Tape & Reel |
| SD580S-T3 | DPAK | 2500/Tape & Reel |
| SD5100S-T3 | DPAK | 2500/Tape & Reel |

♦T3 suffix refers to a 13" reel.

Shipping quantity given is for minimum packing quantity only. For minimum order quantity, please consult the Sales Department.

RECOMMENDED FOOTPRINT



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We power your everyday.