

HERMETIC POWER SCHOTTKY RECTIFIER

Applications:

- Switching Power Supply • Converters • Free-Wheeling Diodes • Polarity Protection Diode

Features:

- Low Reverse Leakage Current
- Very Low Forward Voltage Drop
- Low Power Loss, High Efficiency
- High Surge Capacity
- Guard Ring for Enhanced Durability and Long-Term Reliability
- Guaranteed Reverse Avalanche Characteristics
- Out Performs 100 Volt Ultrafast Rectifiers

Part Ordering Information:

- Ceramic Seal Option – For ceramic seals, use part number prefix SHDC
- JANTXV Equivalent Screening Option- Add suffix “S”
- JANS Equivalent Screening Option- Add suffix “SS”
- SHD126884P - Catalog Equivalent to 1N7070CCT3

Maximum Ratings:

All ratings are at 25⁰C, unless otherwise specified.

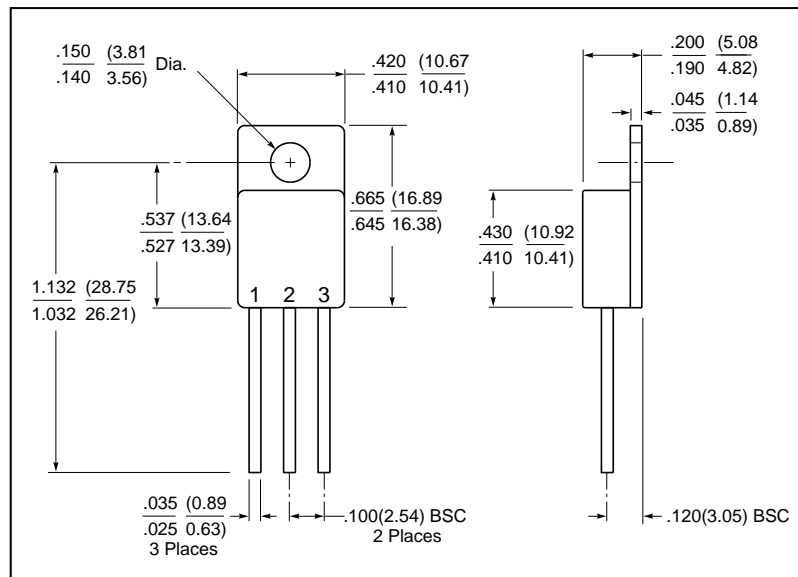
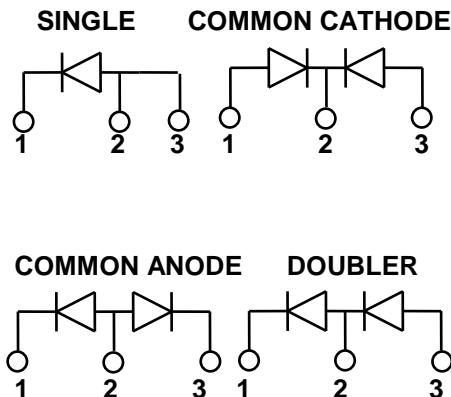
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|--|-----------------|---|-------------|---------|
| Peak Inverse Voltage | V_{RWM} | - | 100 | V |
| Max. Average Forward Current | $I_{F(AV)}$ | 50% duty cycle, rectangular wave form (Single & Doubler) | 15 | A |
| Max. Average Forward Current | $I_{F(AV)}$ | 50% duty cycle, rectangular wave form (Common Anode) | 30 | A |
| Max. Average Forward Current | $I_{F(AV)}$ | Common Cathode $T_c = 100^0C$ Per Package | 16 | A |
| Max. Peak One Cycle Non-Repetitive Surge Current | I_{FSM} | 8.3 ms, half Sine wave (per leg) | 250 | A |
| Avalanche Current | I_{AR} | $V_{BR} = 100V$ min, $L = 100\mu H$ | 1 | A |
| Case Isolation | DWV | $VR = 500V$ (all leads shorted, measure from leads to case) | 10 | μA |
| Max. Thermal Resistance | $R_{\theta JC}$ | (per package) | 1.0 | $^0C/W$ |
| Max. Thermal Resistance | $R_{\theta JC}$ | (per leg) | 2.0 | $^0C/W$ |
| Max. Junction Temperature | T_J | - | -65 to +150 | 0C |
| Max. Storage Temperature | T_{stg} | - | -65 to +150 | 0C |

TECHNICAL DATA
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Electrical Characteristics:

| | | | | |
|---------------------------|----------|--|------|---------------|
| Max. Forward Voltage Drop | V_{F1} | @ 8A, Pulse, $T_J = 25\text{ }^\circ\text{C}$ (per leg) | 0.75 | V |
| | V_{F2} | @ 16A, Pulse, $T_J = 25\text{ }^\circ\text{C}$ (per leg) | 0.95 | V |
| | V_{F3} | @ 8A, Pulse, $T_J = 125\text{ }^\circ\text{C}$ (per leg) | 0.66 | V |
| | V_{F4} | @ 16A, Pulse, $T_J = 125\text{ }^\circ\text{C}$ (per leg) | 0.85 | V |
| | V_{F5} | @ 8A, Pulse, $T_J = -55\text{ }^\circ\text{C}$ (per leg) | 0.77 | V |
| | V_{F6} | @ 16A, Pulse, $T_J = -55\text{ }^\circ\text{C}$ (per leg) | 0.98 | V |
| Max. Reverse Current | I_{R1} | @ $V_R = 100\text{V}$, Pulse, $T_J = 25\text{ }^\circ\text{C}$ (per leg) | 10 | μA |
| | I_{R2} | @ $V_R = 100\text{V}$, Pulse, $T_J = 125\text{ }^\circ\text{C}$ (per leg) | 10 | mA |
| Max. Junction Capacitance | C_T | @ $V_R = 5\text{V}$, $f_{\text{SIG}} = 1\text{MHz}$, $V_{\text{SIG}} = 50\text{mV}$ (p-p) (per leg) | 430 | pF |

Mechanical Dimensions: In Inches / mm



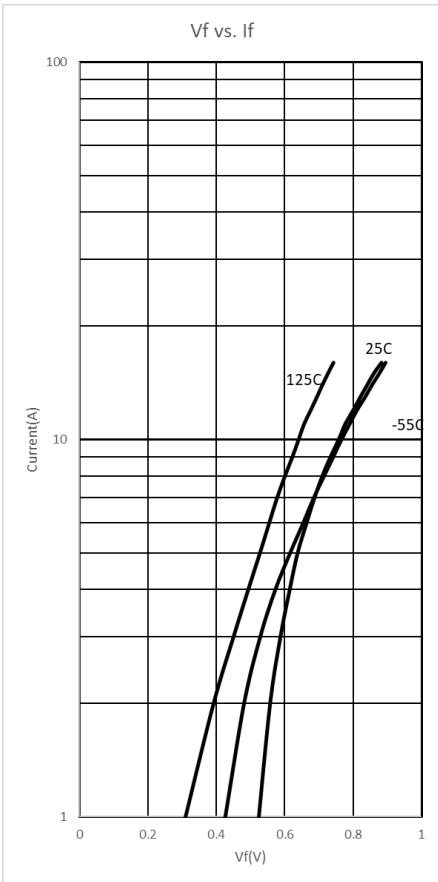
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PINOUT TABLE

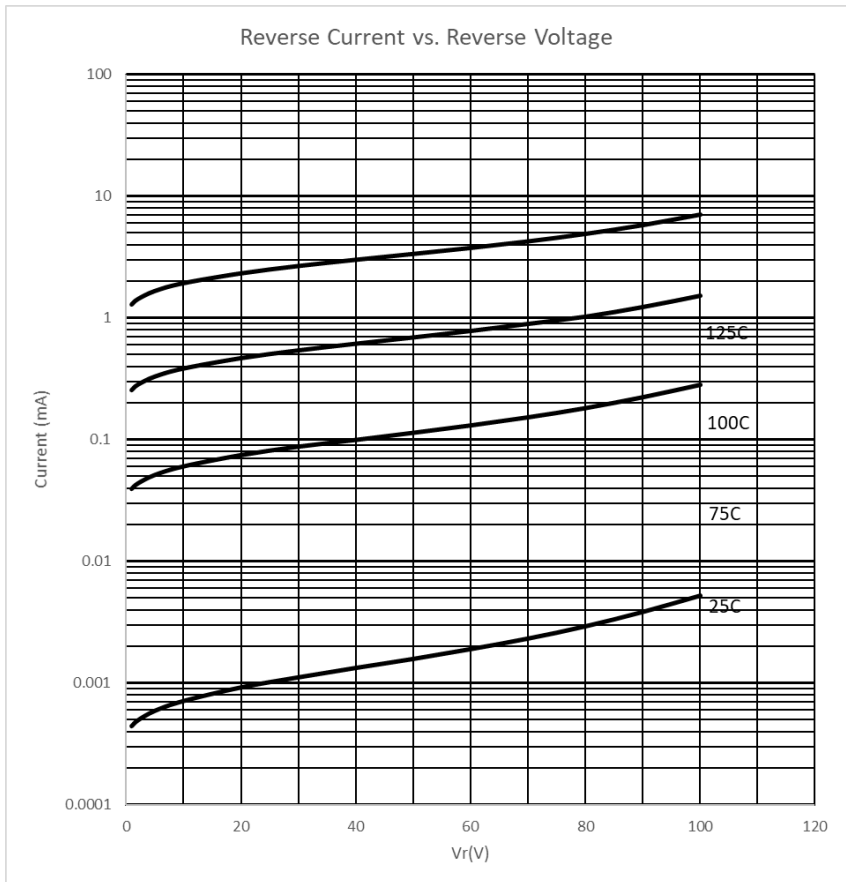
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|------------------------------------|-----------|----------------|-----------|
| SINGLE RECTIFIER | CATHODE | ANODE | ANODE |
| DUAL RECTIFIER, COMMON CATHODE (P) | ANODE 1 | COMMON CATHODE | ANODE 2 |
| DUAL RECTIFIER, COMMON ANODE (N) | CATHODE 1 | COMMON ANODE | CATHODE 2 |
| DUAL RECTIFIER, DOUBLER (D) | CATHODE | ANODE/CATHODE | ANODE |

SENSITRON

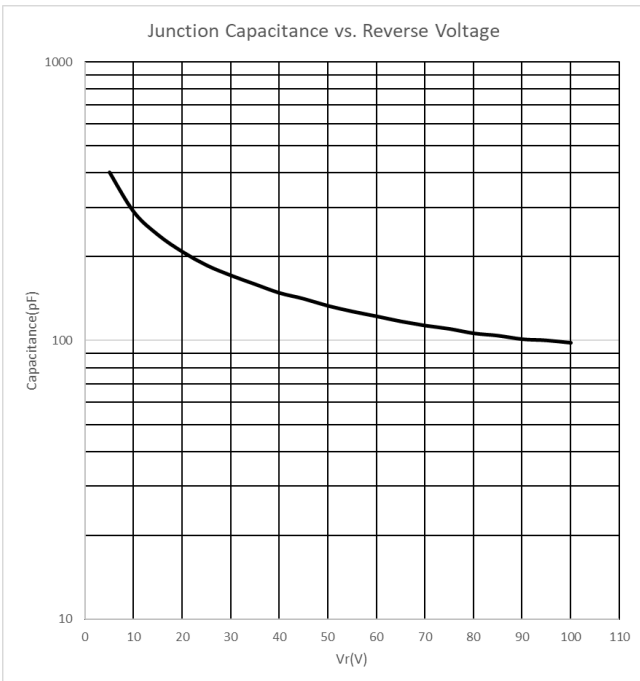
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Typical Forward Voltage Drop Per Leg



Typical Reverse Current Vs. Reverse Voltage Per Leg



Typical Junction Capacitance Vs. Reverse Voltage Per Leg

SENSITRON

TECHNICAL DATA

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