

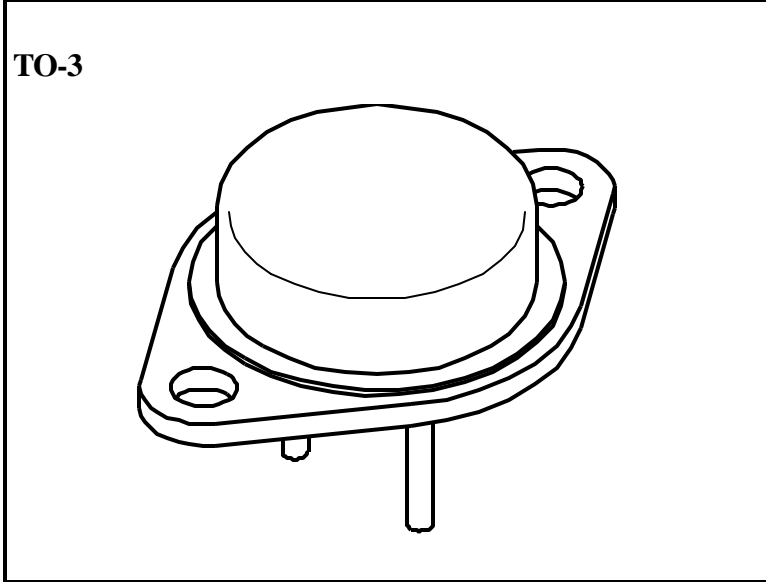


Solid State Devices, Inc.

14701 Firestone Blvd * La Mirada, CA 90638
 Phone: (562) 404-7855 * Fax: (562) 404-1773
 ssdi@ssdi-power.com * www.ssdi-power.com

**SDR623CT/3
 Thru
 SDR626CT/3**

DESIGNER'S DATA SHEET ^{1/}



**40A 35nsec 300-600 V
 Hyper Fast Centertap Rectifier**

- Features:**
- Hyper Fast Recovery: 35nsec Maximum ^{3/}
 - High Surge Rating
 - Low Reverse Leakage Current
 - Low Junction Capacitance
 - Hermetically Sealed Package
 - Gold Eutectic Die Attach
 - Ultrasonic Aluminum Wire Bonds
 - Common Anode and Doubler Versions Available
 - Ceramic Seals for Improved Hermeticity ^{2/}
 - TX, TXV, and S-Level Screening Available ^{2/}

| Maximum Ratings | Symbol | Value | Units |
|--|------------------------------------|-------------|-------|
| Peak Repetitive Reverse Voltage | SDR623CT/3 | 300 | Volts |
| | SDR624CT/3 | 400 | |
| | SDR625CT/3 | 500 | |
| | SDR626CT/3 | 600 | |
| Average Rectified Forward Current ^{4/} (Resistive Load, 60 Hz Sine Wave, T _A = 25 °C) | I _o | 40 | Amps |
| Peak Surge Current ^{5/} (8.3 ms Pulse, Half Sine Wave, T _A = 25 °C) | I _{FSM} | 200 | Amps |
| Operating & Storage Temperature | T _{OP} & T _{STG} | -65 to +200 | °C |
| Maximum Total Thermal Resistance | R _{qJC} | 1.45 | °C/W |
| Junction to Case ^{4/} | | 2.3 | |
| Junction to Case ^{5/} | | | |

Notes:

1/ For ordering information, Price, Operating Curves, and Availability- Contact Factory.
 2/ Screened to MIL-PRF-19500.
 3/ Recovery Conditions: I_F = 0.5 Amp, I_R = 1.0 Amp, rec. to .25 Amp.
 4/ Both Legs Tied Together.
 5/ Each Leg.

SDR623CT/3
Thru
SDR626CT/3

| Electrical Characteristics, per leg | | Symbol | Max | Units |
|--|---------------------------|----------|------|-------------|
| Instantaneous Forward Voltage Drop ($I_F = 10\text{Adc}$, Pulse) | $T_A = 25^\circ\text{C}$ | V_{F1} | 1.30 | V_{DC} |
| | $T_A = 25^\circ\text{C}$ | V_{F2} | 1.45 | |
| Instantaneous Forward Voltage Drop ($I_F = 10\text{Adc}$, Pulse) | $T_A = 100^\circ\text{C}$ | V_{F3} | 1.2 | V_{DC} |
| | $T_A = -55^\circ\text{C}$ | V_{F4} | 1.4 | |
| Reverse Leakage Current (100% of rated V_R , Pulse) | $T_A = 25^\circ\text{C}$ | I_{R1} | 50 | mA |
| | $T_A = 100^\circ\text{C}$ | I_{R2} | 5 | mA |
| 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} | 35 | nsec |
| Junction Capacitance ($V_R = 10V_{DC}$, $T_A = 25^\circ\text{C}$, $f = 1\text{MHz}$) | | C_J | 150 | pF |

| PIN ASSIGNMENT | | | |
|-----------------|---------|---------|---------|
| Configuration | Pin 1 | Pin 2 | Case |
| Common Cathode | Anode | Anode | Cathode |
| Common Anode | Cathode | Cathode | Anode |
| Doubler | Anode | Cathode | Common |
| Doubler Reverse | Cathode | Anode | Common |

