



Solid State Devices, Inc.

14701 Firestone Blvd * La Mirada, Ca 90638
 Phone: (562) 404-4474 * Fax: (562) 404-1773
 ssdi@ssdi-power.com * www.ssdi-power.com

**SDR623CTJ
 Thru
 SDR626DRJ**

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

Designer's Data Sheet

Part Number/Ordering Information ^{1/}
 SDR62 _____

+ **Screening ^{2/}** ___ = Not Screened
 TX = TX Level
 TXV = TXV Level
 S = S Level

+ **Leg Bend Option**
 (See Figure 1)

+ **Package** J = TO-257(J)

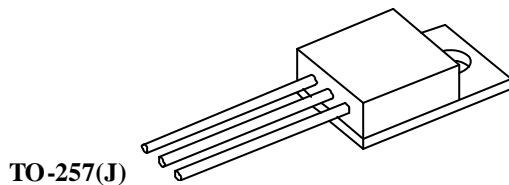
+ **Configuration** CT = Common Cathode,
 CA = Common Anode, D = Doubler,
 DR = Doubler Reverse

+ **Voltage** 3 = 300V, 4 = 400V, 5 = 500V, 6 = 600V

- Features:**
- Hyper Fast Recovery: 35nsec Maximum ^{3/}
 - High Surge Rating
 - Low Reverse Leakage Current
 - Low Junction Capacitance
 - Isolated Hermetically Sealed Package
 - Gold Eutectic Die Attach
 - Ultrasonic Aluminum Wire Bonds
 - Available in Common Anode, Common Cathode, Doubler, and Doubler Reverse Configurations
 - Custom Lead Forming Available
 - TX, TXV, and S-Level Screening Available ^{2/}

Maximum Ratings	Symbol	Value	Units
Peak Repetitive Reverse Voltage	SDR623__J	300	Volts
	SDR624__J	400	
	SDR625__J	500	
	SDR626__J	600	
Average Rectified Forward Current (Resistive Load, 60 Hz Sine Wave, T _A = 25 °C) ^{4/}	I_o	40	Amps
Peak Surge Current (8.3 ms Pulse, Half Sine Wave, T _A = 25 °C) ^{5/}	I_{FSM}	200	Amps
Operating & Storage Temperature	T_{OP} & T_{STG}	-65 to +175	°C
Maximum Total Thermal Resistance Junction to Case ^{4/} Junction to Case ^{5/}	R_{qJC}	1.0	°C/W
		2.1	

- 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/ Per Leg.



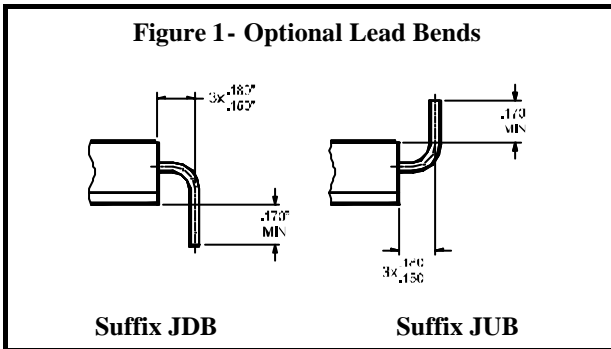


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 Phone: (562) 404-7855 * Fax: (562) 404-1773
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**SDR623CTJ
 Thru
 SDR626DRJ**

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}	1.4	V_{DC}
	$T_A = 25^\circ\text{C}$	V_{F2}	1.7	
Instantaneous Forward Voltage Drop ($I_F = 10\text{Adc}$, Pulse)	$T_A = 100^\circ\text{C}$	V_{F3}	1.3	V_{DC}
	$T_A = -55^\circ\text{C}$	V_{F4}	1.5	
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				
Code	FUNCTION	Pin 1	Pin 2	Pin 3
CT	Common Cathode	Anode1	Cathode	Anode2
CA	Common Anode	Cathode1	Anode	Cathode2
D	Doubler	Cathode	Common	Anode
DR	Doubler Reverse	Anode	Common	Cathode

