



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

SDR620CTJ thru SDR622CTJ

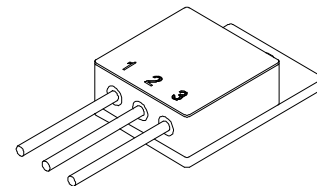
**40 AMPS
100 - 200 VOLTS
35 nsec
HYPER FAST
CENTERTAP RECTIFIER**

Designer's Data Sheet

FEATURES:

- Replaces Two 1N5816 Devices
- Hyper Fast Recovery: 35 nsec Maximum
- High Surge Rating
- Low Reverse Leakage Current
- Low Junction Capacitance
- Hermetically Sealed Package
- Gold Eutectic Die Attach Available
- TX, TXV, and Space Level Screening Available. Consult Factory.

TO-257



Available in Following Configurations:

Common Cathode Centertap: **SDR620CTJ, SDR620CTJUB, SDR620CTJDB; SDR621CTJ, SDR621CTJUB, SDR621CTJDB; SDR622CTJ, SDR622CTJUB, SDR622CTJDB**

Common Anode Centertap: **SDR620CAJ, SDR620CAJUB, SDR620CAJDB; SDR621CAJ, SDR621CAJUB, SDR621CAJDB; SDR622CAJ, SDR622CAJUB, SDR622CAJDB**

Doubler: **SDR620DJ, SDR620DJUB, SDR620DJDB; SDR621DJ, SDR621DJUB, SDR621DJDB;**

SDR622DJ, SDR622DJUB, SDR622DJDB; SDR620DRJ; SDR620DRJUB; SDR620DRJDB; SDR621DRJ; SDR621DRJUB; SDR621DRJDB; SDR622DRJ; SDR622DRJUB; SDR622DRJDB

MAXIMUM RATINGS		Symbol	Value	Units
Peak Repetitive Reverse Voltage and DC Blocking Voltage ^{1/}	SDR620CTJ	V_{RRM}	100	Volts
	SDR621CTJ	V_{RWM}	150	
	SDR622CTJ	V_R	200	
Average Rectified Forward Current (Resistive Load, 60 Hz, Sine Wave, $T_A=25^\circ\text{C}$) ^{2/}		I_O	40	Amps
Peak Surge Current (8.3 ms Pulse, Half Sine Wave, $T_A=25^\circ\text{C}$) ^{2/}		I_{FSM}	300	Amps
Operating and Storage Temperature		T_{OP} & T_{stg}	-65 to +200	$^\circ\text{C}$
Maximum Thermal Resistance Junction to Case (Each Individual Diode) Junction to Case ^{2/}		R_{qJC}	1.2 0.8	$^\circ\text{C/W}$

NOTES:

1/ Higher voltage class available

2/ Both legs tied together

NOTE: All specifications are subject to change without notification. SCD's for these devices should be reviewed by SSDI prior to release.

DATA SHEET #: RH0071F

DOC

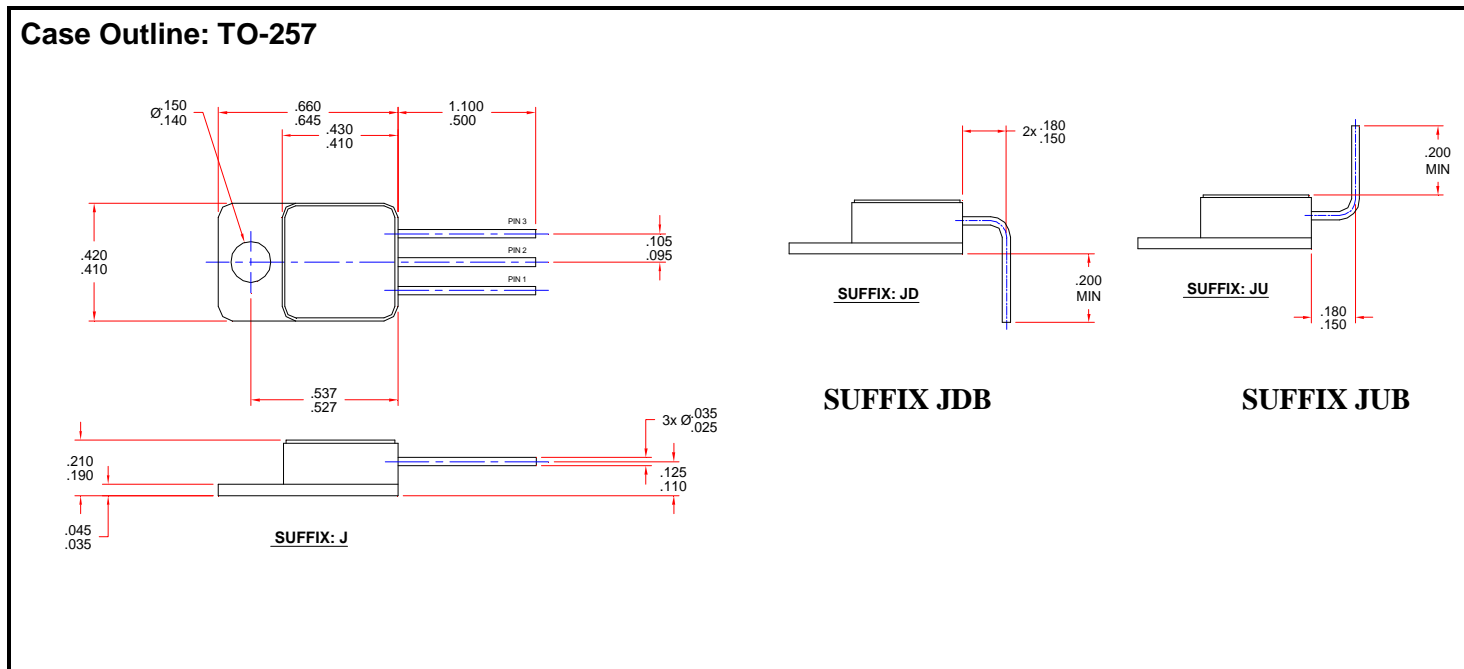


Solid State Devices, Inc.

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

**SDR620CTJ
 thru
 SDR622CTJ**

ELECTRICAL CHARACTERISTICS (Per Leg)	Symbol	Min	Max	Unit
Instantaneous Forward Voltage Drop ($I_F = 10$ Amps, $T_A = 25^\circ\text{C}$, 300 μsec Pulse) ($I_F = 20$ Amps, $T_A = 25^\circ\text{C}$, 300 μsec Pulse)	V_{F1} V_{F2}	—	1.05 1.25	Volts
Instantaneous Forward Voltage Drop ($I_F = 10$ Amps, $T_A = 100^\circ\text{C}$, 300 μsec Pulse) ($I_F = 10$ Amps, $T_A = -55^\circ\text{C}$, 300 μsec Pulse)	V_{F3} V_{F4}	—	0.95 1.20	Volts
Reverse Leakage Current (Rated V_R , $T_A = 25^\circ\text{C}$, 300 μsec pulse minimum)	I_{R1}	—	10	mA
Reverse Leakage Current (Rated V_R , $T_A = 100^\circ\text{C}$, 300 μsec pulse minimum)	I_{R2}	—	1	mA
Junction Capacitance ($V_R = 10$ V _{DC} , $T_A = 25^\circ\text{C}$, $f = 1$ MHz)	C_J	—	225	pF
Reverse Recovery Time ($I_F = 0.5$ A, $I_R = 1$ A, $I_{RR} = 0.25$ A, $T_A = 25^\circ\text{C}$)	t_{rr}	—	35	ns



Common Cathode	Common Anode	Doubler	PIN ASSIGNMENT				
			CODE	FUNCTION	PIN 1	PIN 2	PIN 3
			CT	Common Anode	Anode 1	Cathode	Anode 2
			CA	Common Anode	Cathode 1	Anode	Cathode 2
			D	Doubler	Anode 1	Cathode1/Anode 2	Cathode 2
			DR	Doubler Reverse	Cathode 1	Cathode2/Anode 1	Anode 2