



Solid State Devices, Inc.

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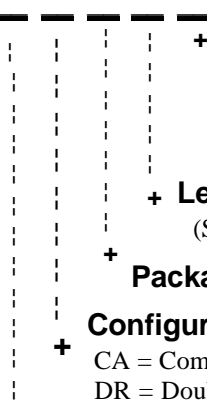
SDR623CTM & Z Thru SDR626DRM & Z

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 M = TO-254, Z = TO-254Z

+ 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
- Hermetically Sealed Package
- Gold Eutectic Die Attach
- Ultrasonic Aluminum Wire Bonds
- Available in Common Anode, Common Cathode, Doubler, and Doubler Reverse Configurations
- Ceramic Seal for Improved Hermeticity Available
- TX, TXV, and S-Level Screening Available ^{2/}

Maximum Ratings	Symbol	Value	Units
Peak Repetitive Reverse Voltage	SDR623__M & Z	300	Volts
	SDR624__M & Z	400	
	SDR625__M & Z	500	
	SDR626__M & Z	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 +200	°C
Maximum Total Thermal Resistance	R _{qJC}	1.0	°C/W
		2.0	

Notes:

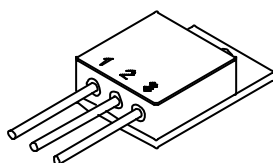
1/ For ordering information, Price, Operating Curves, and Availability- Contact Factory.

2/ Screened to MIL-PRF-19500.

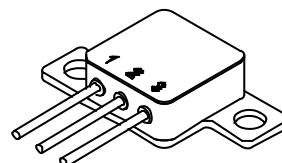
3/ Recovery Conditions: I_F = 0.5 Amp, I_R = 1.0 Amp, rec. to .25 Amp.

4/ Both Legs Tied Together.

5/ Per Leg.



- TO-254 (M)



- TO-254Z (Z)

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

DATA SHEET #: RH0049C

DOC

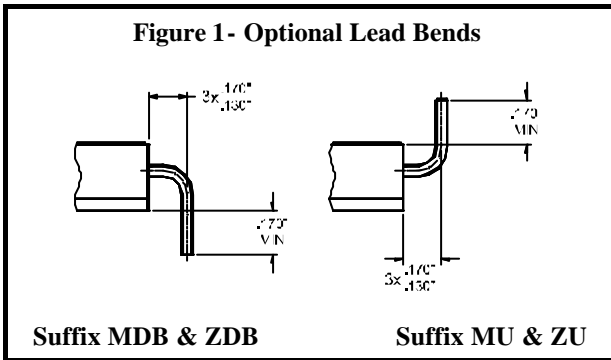


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SDR623CTM & Z
Thru
SDR626DRM & Z

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}	1.35	V_{DC}
	$T_A = 25^\circ\text{C}$	V_{F2}	1.55	
Instantaneous Forward Voltage Drop ($I_F = 10\text{Adc}$, Pulse)	$T_A = 100^\circ\text{C}$	V_{F3}	1.25	V_{DC}
	$T_A = -55^\circ\text{C}$	V_{F4}	1.45	
Reverse Leakage Current (80% 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	Anode	Cathode	Anode
CA	Common Anode	Cathode	Anode	Cathode
D	Doubler	Cathode	Common	Anode
DR	Doubler Reverse	Anode	Common	Cathode

