



Solid State Devices, Inc.

14701 Firestone Blvd * La Mirada, Ca 90638
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**SDR10D thru SDR10M
and
SDR10DSMS thru SDR10MSMS
Series**

**10 AMPS
200 – 1000 VOLTS
5 μs STANDARD RECOVERY
RECTIFIER**

Designer's Data Sheet

Part Number/Ordering Information ^{1/}

SDR10

Screening ^{2/}

- = Not Screened
- TX = TX Level
- TXV = TXV
- S = S Level

Package Type

- = Axial Leaded
- SMS = Surface Mount Square Tab

Voltage/Family

- D = 200V K = 800 V
- G = 400V M = 1000 V
- J = 600V

FEATURES:

- Standard Recovery: 5 μs maximum ^{4/}
- PIV to 1000 Volts
- Hermetically Sealed
- Low Reverse Leakage Current
- Single Chip Construction
- High Surge Rating
- Replaces Larger DO-4 Rectifiers
- Low Thermal Resistance
- Available in Axial & Square Tab Versions
- TX, TXV, and S-Level Screening Available ^{2/}
- Faster Recovery Devices Available - Contact Factory

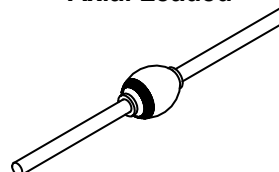
MAXIMUM RATINGS ^{3/}

RATING		SYMBOL	VALUE	UNIT
Peak Repetitive Reverse Voltage And DC Blocking Voltage	SDR10D & SDR10DSMS	V_{RRM}	200	Volts
	SDR10G & SDR10GSMS		400	
	SDR10J & SDR10JSMS	V_{RWM}	600	
	SDR10K & SDR10KSMS	V_R	800	
	SDR10M & SDR10MSMS		1000	
Average Rectified Forward Current (Resistive Load, 60Hz, Sine Wave, T _A = 25°C)		I_O	10.0	Amps
Peak Surge Current (8.3 ms pulse, half sine wave, superimposed on I _o , allow junction to reach equilibrium between pulses, T _A = 25°C)		I_{FSM}	125	Amps
Operating & Storage Temperature		T _J and T _{STG}	-65 to +175	°C
Thermal Resistance	Junction to Lead for Axial, L = .125"	R _{θJL}	8	°C/W
	Junction to End Tab for Surface Mount	R _{θJE}	4	

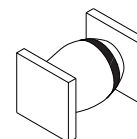
NOTES:

- ^{1/} For Ordering Information, Price, Operating Curves, and Availability- Contact Factory.
- ^{2/} Screening Based on MIL-PRF-19500. Screening Flows Available on Request.
- ^{3/} Unless Otherwise Specified, All Electrical Characteristics @25°C.
- ^{4/} I_F = 500mA, I_R = 1A, I_{RR} = 250mA, T_A = 25°C

Axial Leaded



SMS



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

DATA SHEET #: R0001D

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ELECTRICAL CHARACTERISTICS ^{3/}				
CHARACTERISTICS		SYMBOL	VALUE	UNIT
			MAX	
Instantaneous Forward Voltage Drop $I_F = 10.0 \text{ Adc}, 300\text{-}500\mu\text{s pulse}$	$T_A = +25^\circ\text{C}$	V_{F1}	1.25	Vdc
	$T_A = -55^\circ\text{C}$	V_{F2}	1.40	
Reverse Leakage Current Rated V_R , 300 μs pulse minimum	$T_A = +25^\circ\text{C}$	I_{R1}	5	μA
	$T_A = +100^\circ\text{C}$	I_{R2}	200	
Junction Capacitance $V_R = 10 \text{ Vdc}, f = 1\text{MHz}, T_A = 25^\circ\text{C}$		C_J	80	pF
Reverse Recovery Time $I_F = 500\text{mA}, I_R = 1\text{A}, I_{RR} = 250\text{mA}, T_A = 25^\circ\text{C}$		t_{rr}	5	μs

Package Outlines:

DIMENSIONS (inches)			DIMENSIONS (inches)		
DIM.	Minimum	Maximum	DIM.	Minimum	Maximum
A	---	.170	A	.170	.180
B	.210	.250	B	.260	.300
C	.037	.043	C	.020	.030
D	1.000	---	D	.002	---

<p>AXIAL</p>	<p>SMS</p>
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