



PRELIMINARY

# SOLID STATE DEVICES, INC

14849 Firestone Boulevard · La Mirada, CA 90638  
Phone: (714) 670-SSDI (7734) · Fax: (714) 522-7424



**SDR10ASMS  
thru  
SDR10MSMS**

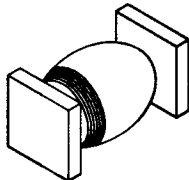
## Designer's Data Sheet

**10 AMPS  
50-1000 VOLTS  
5 μsec  
STANDARD RECOVERY  
RECTIFIER**

### FEATURES:

- Standard Recovery: 5 μsec maximum
- PIV to 1000 Volts
- Replaces larger DO-4 Rectifiers
- Hermetically Sealed Surface Mount package
- Single Chip Construction
- High Surge Rating
- Low Thermal Resistance
- Available in axial lead version
- Faster recovery devices are available
  
- TX, TXV, and Space Level Screening

**SURFACE MOUNT  
SQUARE TAB**



### MAXIMUM RATINGS

RATING	SYMBOL	VALUE	UNIT
<b>Peak Repetitive Reverse and DC Blocking Voltage</b> SDR10ASMS SDR10BSMS SDR10DSMS SDR10GSMS SDR10JSMS SDR10KSMS SDR10MSMS	VRRM  VRWM  VR	50 100 200 400 600 800 1000	Volts
<b>Average Rectified Forward Current</b> (Resistive Load, 60Hz, Sine Wave, TA=25°C)	IO	10	Amps
<b>Peak Surge Current</b> (8.3 ms Pulse, Half Sine Wave Superimposed on IO, allow junction to reach equilibrium between pulses, TA=25°C)	IFSM	150	Amps
<b>Operating and storage temperature</b>	Top & Tstg	-65 to +175	°C
<b>Maximum Thermal Resistance</b> Junction to End Tabs	RθJE	4	°C/W

# SDR10ASMS thru SDR10MSMS

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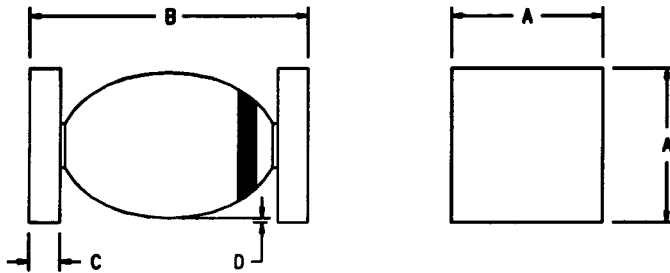
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## ELECTRICAL CHARACTERISTICS

CHARACTERISTICS	SYMBOL	MAXIMUM	UNIT
Instantaneous Forward Voltage Drop ( $I_F = 10 \text{ Adc}$ , $T_A = 25^\circ\text{C}$ , 300 $\mu\text{s}$ Pulse)	VF	1.25	Vdc
Instantaneous Forward Voltage Drop ( $I_F = 10 \text{ Adc}$ , $T_A = -55^\circ\text{C}$ , 300 $\mu\text{s}$ Pulse)	VF	1.40	Vdc
Reverse Leakage Current (Rated $V_R$ , $T_A = 25^\circ\text{C}$ , 300 $\mu\text{s}$ pulse minimum)	IR	5	$\mu\text{A}$
Reverse Leakage Current (Rated $V_R$ , $T_A = 100^\circ\text{C}$ , 300 $\mu\text{s}$ pulse minimum)	IR	200	$\mu\text{A}$
Junction Capacitance ( $V_R = 10 \text{ Vdc}$ , $T_A = 25^\circ\text{C}$ , $f = 1 \text{ MHz}$ )	CJ	80	pf
Reverse Recovery Time ( $I_F = 500\text{mA}$ , $I_R = 1 \text{ A}$ , $I_{RR} = 250\text{mA}$ , $T_A = 25^\circ\text{C}$ )	trr	5	$\mu\text{sec}$

## CASE OUTLINE: SURFACE MOUNT SQUARE TAB



DIMENSIONS		
DIM	MIN	MAX
A	.195"	.205"
B	.200"	.250"
C	.022"	.028"
D	.002"	---

Dimensions are prior to solder dipping

## TYPICAL OPERATING CURVES

$T_A = 25^\circ\text{C}$  Unless otherwise specified

