SSDI
SOLID STATE DEVICES, INC

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

PRELIMINARY

SDR3ASMS thru SDR3NSMS

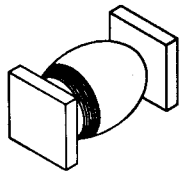
3 AMP 50-1200 VOLTS 50-80 nsec ULTRA FAST RECTIFIER

Designer's Data Sheet

FEATURES:

- Ultra Fast Recovery: 50-80 nsec Max. @ 25°C
  85-125 nsec Max. @ 100°C
- Single Chip Construction
- PIV to 1200 Volts
- Low Reverse Leakage Current
- Hermetically Sealed Surface Mount package
- For High Efficiency Applications
- Metallurgically Bonded
- Available in axial leaded versions
- TX, TXV and Space Level Screening Available

SURFACE MOUNT
SQUARE TAB



MAXIMUM RATINGS

RATING		SYMBOL	VALUE	UNIT
Peak Repetitive Reverse and DC Blocking Voltage	**SDR3ASMS**		50	
	SDR3BSMS		100	
	SDR3DSMS	V_{RRM}	200	
	SDR3GSMS		400	
	SDR3JSMS	V_{RWM}	600	**Volts**
	SDR3KSMS		800	
	SDR3MSMS	V_R	1000	
	SDR3NSMS		1200	
Average Rectified Forward Current (Resistive Load, 60Hz, Sine Wave, TA=25°C)		**Io**	3	**Amps**
Peak Surge Current (8.3 ms Pulse, Half Sine Wave Superimposed on Io, allow junction to reach equilibrium between pulses, TA=25°C)		**I_{FSM}**	75	**Amps**
Operating and storage temperature		**Top & Tstg**	-65 to +175	**°C**
Maximum Thermal Resistance Junction to End Tab		**$R\theta_{JE}$**	14	**°C/W**

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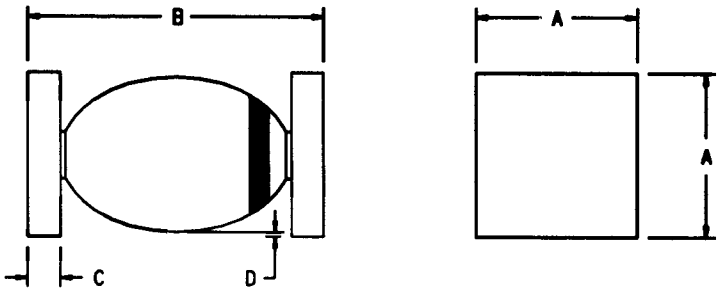
ELECTRICAL CHARACTERISTICS

CHARACTERISTICS		SYMBOL	MAXIMUM	UNIT
Instantaneous Forward Voltage Drop (I_F = 3 Adc, T_A=25°C, 300µs Pulse)	SDR3ASMS-3JSMS SDR3KSMS-3NSMS	VF	1.7 1.9	Vdc
Instantaneous Forward Voltage Drop (I_F = 3 Adc, T_A=-55°C, 300µs Pulse)	SDR3ASMS-3JSMS SDR3KSMS-3NSMS	VF	1.9 2.1	Vdc
Reverse Leakage Current (Rated VR, T_A=25°C, 300µs pulse minimum)		IR	5	µA
Reverse Leakage Current (Rated V_R, T_A=100°C, 300µs pulse minimum)		IR	0.5	mA
Junction Capacitance (V_R = 10 Vdc, T_A=25°C, f= 1 MHz)		CJ	40	pf
Reverse Recovery Time (I_F =500ma, I_R = 1A, I_{RR}=250mA, T_A=25°C)	SDR3ASMS-3JSMS SDR3KSMS SDR3MSMS-3NSMS	trr	50 60 70 80	nsec

CASE OUTLINE:



Dimensions prior to solder dipping.

DIMENSIONS		
DIM	MIN.	MAX.
A	.172"	.180"
B	.180"	.280"
C	.022"	.028"
D	.002"	---

TYPICAL OPERATING CURVES

TA=25°C Unless otherwise specified