

**SDR1302
thru
SDR1308**

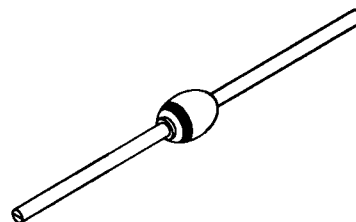
Designer's Data Sheet

FEATURES:

- Ultra Fast Recovery: 70 nsec Maximum @ 25°C
110 nsec Maximum @ 110°C
- Single Chip Construction
- PIV to 800 Volts
- Low Reverse Leakage Current
- Hermetically Sealed
- For High Efficiency Applications
- Replaces Unitrode: UES1304 Series
- Metallurgically Bonded
- TX, TXV and Space Level Screening Available
- Surface Mount versions available

**3 AMP
200-800 VOLTS
70 nsec
ULTRA FAST
RECTIFIER**

AXIAL



MAXIMUM RATINGS

RATING	SYMBOL	VALUE	UNIT
Peak Repetitive Reverse and DC Blocking Voltage SDR1302 SDR1304 SDR1306 SDR1308	VRRM VRWM VR	200 400 600 800	Volts
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)	IFSM	75	Amps
Operating and storage temperature	Top & Tstg	-65 to +175	°C
Maximum Thermal Resistance Junction to Leads, L=3/8"	RθJL	20	°C/W

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

DATA SHEET #: RU0011 A

RMD

SDR1302 thru SDR1308

PRELIMINARY



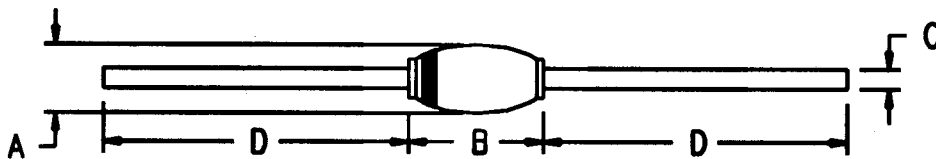
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ELECTRICAL CHARACTERISTICS

CHARACTERISTICS	SYMBOL	MAXIMUM	UNIT
Instantaneous Forward Voltage Drop ($I_F = 3 \text{ A}$, $T_A = 25^\circ\text{C}$, $300\mu\text{s}$ Pulse)	V_F	1.35	Vdc
Instantaneous Forward Voltage Drop ($I_F = 3 \text{ A}$, $T_A = -55^\circ\text{C}$, $300\mu\text{s}$ Pulse)	V_F	1.5	Vdc
Reverse Leakage Current (Rated V_R , $T_A = 25^\circ\text{C}$, $300\mu\text{s}$ pulse minimum)	I_R	20	μA
Reverse Leakage Current (Rated V_R , $T_A = 100^\circ\text{C}$, $300\mu\text{s}$ pulse minimum)	I_R	1	mA
Junction Capacitance ($V_R = 10 \text{ Vdc}$, $T_A = 25^\circ\text{C}$, $f = 1 \text{ MHz}$)	C_J	50	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}	70	nsec

CASE OUTLINE:



DIMENSIONS

DIM	MIN.	MAX.
A	.140"	.170"
B	.170"	.230"
C	.047"	.053"
D	1.00"	---

TYPICAL OPERATING CURVES

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

