

SSDI

PRELIMINARY

SOLID STATE DEVICES, INC

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

Designer's Data Sheet

FEATURES:

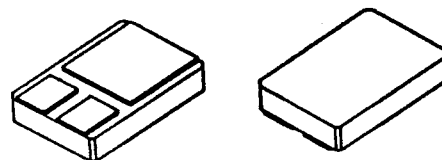
- Hyper Fast Recovery: 35 nsec Maximum
- High Surge Rating
- Low Reverse Leakage Current
- Low Junction Capacitance
- Hermetically Sealed Surface Mount Power Package
- Gold Eutectic Die Attach available
- Ultrasonic Aluminum Wire Bonds

- TX, TXV and Space Level Screening Available

**SDR680
thru
SDR682**

**80 AMP
100-200 VOLTS
35 nsec
HYPER FAST
RECTIFIER**

MILPACK™



MAXIMUM RATINGS

RATING	SYMBOL	VALUE	UNIT
Peak Repetitive Reverse and DC Blocking Voltage, note 1 SDR680 SDR681 SDR682	VRRM VRWM VR	100 150 200	Volts
Average Rectified Forward Current (Resistive Load, 60Hz, Sine Wave, TA=25°C) note 2	IO	80	Amps
Peak Surge Current (8.3 ms Pulse, Half Sine Wave, TA=25°C) note 2	IFSM	1000	Amps
Operating and storage temperature	Top & Tstg	-65 to +200	°C
Maximum Thermal Resistance Junction to Case, note 2	RθJC	1.0	°C/W

Note 1 Higher voltage class available

Note 2 Both legs tied together

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

DATA SHEET#: RH0075 A

MED

SDR680 thru SDR682

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ELECTRICAL CHARACTERISTICS

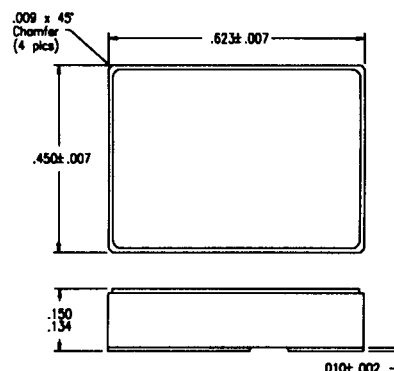
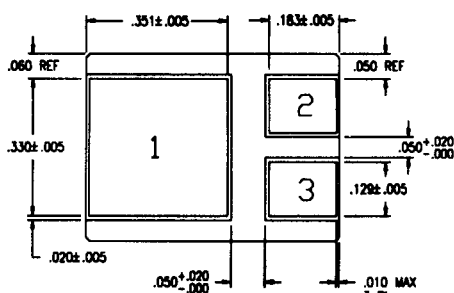
CHARACTERISTICS	SYMBOL	MAXIMUM	UNIT
Instantaneous Forward Voltage Drop (IF = 40 Adc, TA=25°C, 300μs Pulse) note 1 (IF = 80 Adc, TA=25°C, 300μs Pulse) note 1	VF	1.0 1.2	Vdc
Instantaneous Forward Voltage Drop (IF = 40 Adc, TA= 100°C, 300μs Pulse) note 1 (IF = 40 Adc, TA= - 55°C, 300μs Pulse) note 1	VF	0.9 1.1	Vdc
Reverse Leakage Current (Rated VR, TA=25°C, 300μs pulse minimum)	IR	40	μA
Reverse Leakage Current (Rated VR, TA=100°C, 300μs pulse minimum)	IR	4	mA
Junction Capacitance (VR = 10 Vdc, TA=25°C, f= 1 MHz)	CJ	600	pf
Reverse Recovery Time (IF=1 A, IR=1 A, IRR= 100mA, TA=25°C)	trr	35	nsec

CASE OUTLINE: MILPACK

PIN 1: CATHODE
PIN 2: ANODE
PIN 3: ANODE

Note 1:

For best results connect pin
2 & 3 together in application.



TYPICAL OPERATING CURVES

TA=25°C Unless otherwise specified

