



SOLID STATE DEVICES, INC.

14830 Valley View Blvd * La Mirada, Ca 90638
 Phone: (562) 404-7855 * Fax: (562) 404-1773
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**SDR1210UF / SDR1212UF
 SERIES**

**12 AMP
 1000 - 1200 VOLTS
 75 nsec
 ULTRA FAST RECTIFIER**

DESIGNER'S DATA SHEET

Part Number /Ordering Information ^{1/}

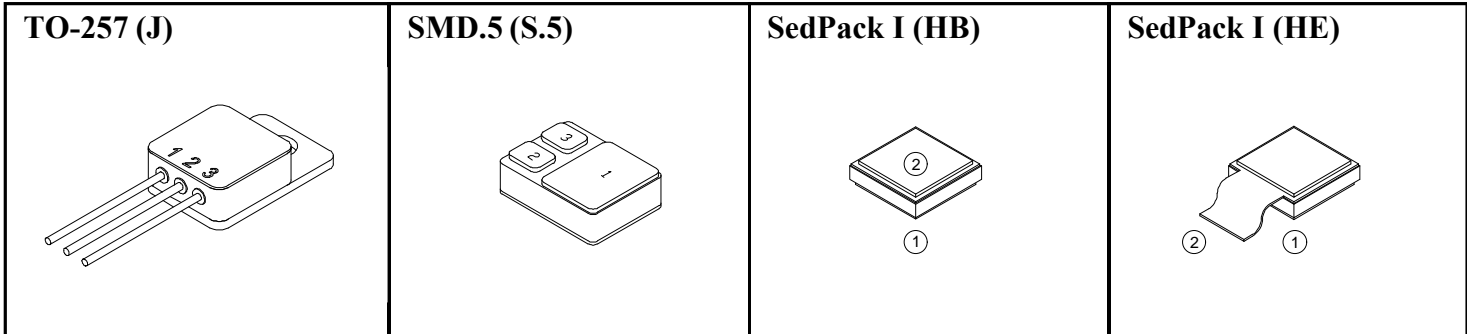
SDR12 12 J UF UB TX

- Screening: ^{2/} _ = Not Screened
 TX = TX Level
 TXV = TXV Level
 S = Space Level
- Lead Bending: ^{3/ 4/}
 _ = Straight
 UB = Up Bend
 DB = Down Bend
- Package: ^{3/} J = TO-257
 S.5 = SMD .5
 HB = SedPack I (Leadless)
 HE = SepPack I (Leaded)
- Voltage: 10 = 1000V
 12 = 1200V

FEATURES:

- Ultra Fast Recovery: 75nsec Maximum
- High Surge Rating
- Low Reverse Leakage Current
- Low Junction Capacitance
- Hermetically Sealed Package
- Custom Lead Forming Available
- Eutectic Die Attach
- TX, TXV and S Level Screening Available

Maximum Ratings ^{2/}		SYMBOL	VALUE	UNITS
Peak Repetitive Reverse and DC Blocking Voltage	SDR1210 SDR1212	V _{RRM} V _{VRM} V _R	1000 1200	Volts
Average Rectified Forward Current. (Resistive load, 60Hz, Sine Wave, T _A = 25°C)		I _o	12	Amps
Peak Surge Current (8.3 ms Pulse, Half Sine Wave, T _A = 25°C)		I _{FSM}	125	Amps
Operating and Storage Temperature		T _{OP} & T _{stg}	-65 TO +175	°C
Maximum Thermal Resistance Junction to Case	TO-257 (J) SMD.5 (S.5) SedPack I (HB & HE)	R _{QJC}	1.4 0.8 0.8	°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 #: RC0066A

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Electrical Characteristics ^{5/}		SYMBOL	MIN	MAX	UNITS
Instantaneous Forward Voltage Drop (T _A = 25°C, 300 - 500µsec Pulse)	I _F = 8A	V _{F1}	--	1.50	V _{DC}
	I _F = 12A	V _{F2}	--	1.60	
Instantaneous Forward Voltage Drop (I _F = 8A, 300 - 500µsec pulse)	T _A = -55°C	V _{F3}	--	1.60	V _{DC}
	T _A = 100°C	V _{F4}	--	1.40	
Reverse Leakage Current (80% of Rated V _R , 300µs pulse min.)	T _A = 25°C	I _{R1}	--	30	mA
	T _A = 100°C	I _{R2}	--	500	
Junction Capacitance (V _R = 10V _{DC} , T _A = 25°C, f = 1MHz)		C _J	--	50	pF
Reverse Recovery Time (I _F = 0.5A, I _R = 1A, I _{RR} = 0.25A, T _A = 25°C)		t _{RR}	--	75	nsec

NOTES:

- 1/ For Ordering Information, Price, and Availability Contact Factory.
- 2/ Screening per MIL-PRF-19500.
- 3/ For Package Outlines Contact Factory.
- 4/ Up and Down Bend Configurations Available for M and Z (TO-254 and TO-254Z) Packages Only.
- 5/ All Electrical Characteristics @25°C, Unless Otherwise Specified.

Available Part Numbers:

SDR1210JUF	SDR1212JUF
SDR1210JUFDB	SDR1212JUFDB
SDR1210JUFUB	SDR1212JUFUB
SDR1210S.5UF	SDR1212S.5UF
SDR1210HBUF	SDR1212HBUF
SDR1210HEUF	SDR1212HEUF

PIN ASSIGNMENT

PACKAGE	Pin 1	Pin 2	Pin 3
TO-257 (J)	Cathode	Anode	Anode
SMD.5 (S.5)	Cathode	Anode	Anode
SedPack 1 (HB)	Cathode	Anode	N/A
SedPack 1 (HE)	Cathode	Anode	N/A