

Solid State Devices, Inc.

14701 Firestone Blvd * La Mirada, Ca 90638 Phone: (562) 404-4474 * Fax: (562) 404-1773 ssdi@ssdi-power.com * www.ssdi-power.com

Designer's Data Sheet

Part Number/Ordering Information 1/

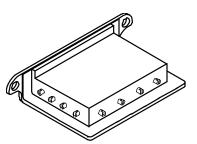
SDA346

L Screening 2/

 $\underline{-}$ = Not Screened TX = TX Level

TXV = TXV

S = S Level



SDA346

ULTRA FAST RECOVERY HIGH VOLTAGE ASSEMBLY

Up To 30KV @ 250mA

125KHz Operating Frequency

FEATURES:

- Designed For Use With High Voltage Switching Power Supplies
- Discretes and Assemblies Screened to TX, TXV, or S Level
- High Reverse Transient Energy Capabilities
- Void Free, Hermetically Sealed, Metallurgically Bonded Discretes
- Single Junction Discretes Provide Superior Thermal Properties Than Designs Using Multi-junction Discretes
- Isolated Aluminum Heat Sink with Special Epoxy Encapsulation Provides Superior Power Dissipation
- All Internal Devices are Matched & Selected
- Unique Construction Techniques Guarantee 100% Corona Free Operation
- Consult Factory for Higher Voltages and Currents and Alternate Bridge Configurations

MAXIMUM RATINGS PER LEG				ELECTRICAL CHARACTERISTICS PER LEG			
Rating ^{1/}	Symbol	Value	Unit	Characteristic ^{1/}	Symbol	Value	Unit
Peak Repetitive Reverse Voltage and DC Blocking Voltage	VRM(rep) Vr	10,000	Volts	Max. Full Cycle Forward Voltage Drop, Averaged Over Full Cycle ^{6/}	VF (AV)	7.0	Vdc
RMS Reverse Voltage	Vr	7,000	Volts	Max. Instantaneous Forward Voltage Drop ^{2/}	VF	14.5	Vdc
Half Wave Rectified Forward Current Averaged Over Full Cycle ^{2/}	Ю	1	Amps	Max. Full Cycle Leakage Current Averaged Over Full Cycle 8/	IR (AV)	100	μAdc
Peak Repetitive Forward Current ^{3/}	IFM(rep)	6	Amps				
Peak Surge Current ^{4/}	IFM(surge)	25	Amps	Max. Reverse Leakage Current 9/	IR	5	μAdc
Operating & Storage Temperature	TJ, Tstg	-55 to +125	°C	Max. Junction Capacitance 10/	СЈ	1.5	pf
Reverse Recovery Time 5/	trr	60	ns		•		

NOTES:

- 1. Unless Otherwise Specified, All Electrical Characteristics @25°C.
- 2. Resistive Load, 60Hz, Sine Wave, TC=25°C.
- 3. TC=55°C, 8.3 ms Pulse, Allow Junction to Reach Equilibrium Between Pulses.
- 4. TC=55°C, 8.3ms Pulse, Superimposed on Rated Current at Rated Voltage.
- 5. Recovery Conditions: $I_F = 0.5 \text{ Amp}$, $I_R = 1.0 \text{ Amp}$ rec. to .25 Amp, tested on each individual diode before assembly.
- 6. IO (MAX), 60Hz, Square Wave, TC = 55 $^{\circ}$ C.
- 7. IF = 1 Adc, TC = 25° C, 300 µs Pulse.
- 8. Rated VR, 60Hz, Square Wave, $TC = 100^{\circ}C$.
- 9. Rated VR, $TC = 25^{\circ}C$.
- 10. VR = 100V, $TC = 25^{\circ}C$.

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

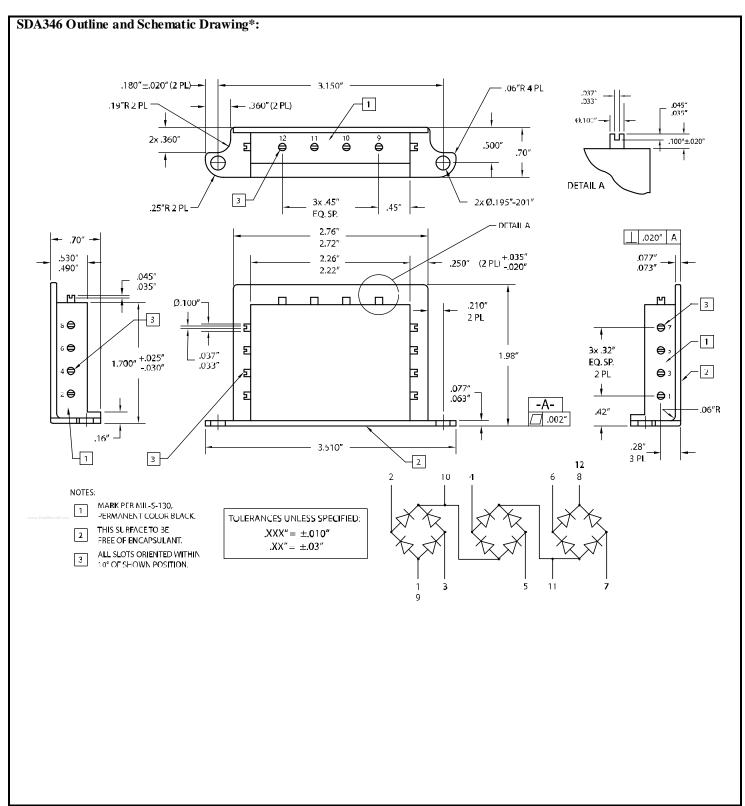
DATA SHEET #: RA0073A

DOC



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^{*}For information on curves, contact the Factory Representative for Engineering Assistance.