

Applied Pulsed Power™

Division of Silicon Power Corporation

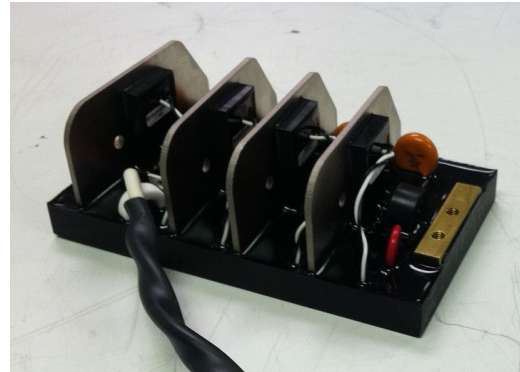
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Model S34M-6 Solid State Switch For Lithotrippers

A solid state high voltage switch suitable for use in Lithotrippers or as a spark gap replacement. This switch features:

- 30kV Peak Off-State Voltage
- 14kA Peak Non-Repetitive Current
- 10kA Ringing Discharge
- 30kA/ μ S Maximum di/dt



These solid state switches are suitable for use in Lithotrippers or as spark gap replacements, providing high di/dt at repetition rates of several hertz. Switches for 10kV to 30kV peak off-state voltages are available. Contact sales@appliedpulsedpower.com for more information.

Operational Ratings (T_j=80°C, unless otherwise specified)

Peak Off-State Voltage	30000	Volts
Maximum DC Operating Voltage	24000	Volts
Peak Non-Repetitive Current	14000	Amps
Peak Repetitive Current (10 μ sec pulse)	10000	Amps
Maximum di/dt	30	kA/ μ Sec
Maximum RMS On-State Current (T _j =120°C)	100	Amps
Operating Temperature Range	0 to 70	°C
Peak Rate of Reapplication of Off-State Voltage	1000	V/ μ Sec

Operational Characteristics

Maximum Leakage Current	(T _j =25°C)	200	μ Amp
	(T _j =80°C)	240	μ Amp
	(T _j =120°C)	1000	μ Amp
Turn-On Delay		1.5	μ Sec
Turn-off Time		5	mSec

Model S34M Solid State Switch For Lithotrippers Data Sheet
Specifications as of March 2017

Trigger Characteristics

Trigger Voltage	15	Volts
Trigger Current	1	Amps
Trigger Isolation Voltage	40	kV

Along with the S34-6, the model S34M series has 4 other voltage ranges as shown in the following selection guide. All of the S34M series have the same current ratings and trigger characteristics.

Part Number Selection Guide

Part Number	Peak Off-State Voltage Rating	Maximum DC Voltage Rating	Switch Length	Maximum Thermal Dissipation	On-State Resistance	Off State Resistance
S34M-2	10kV	8kV	3.4"	20W	20mΩ	44MΩ
S34M-3	15kV	12kV	4.4"	30W	30mΩ	66MΩ
S34M-4	20kV	16kV	5.4"	40W	40mΩ	88MΩ
S34M-5	25kV	20kV	6.4"	50W	50mΩ	110MΩ
S34M-6	30kV	24kV	7.4"	60W	60mΩ	132MΩ

