



PRELIMINARY

SOLID STATE DEVICES, INC.

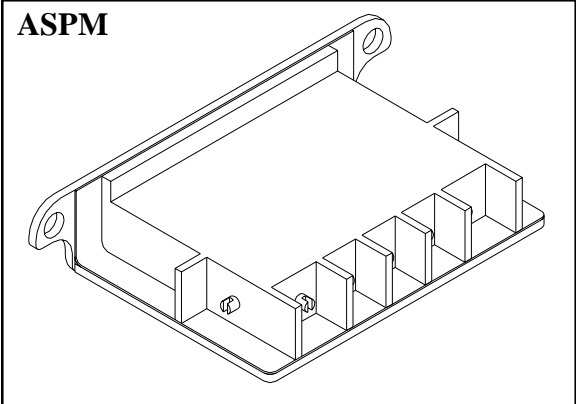
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DESIGNER'S DATA SHEET

SDA475-02

3 AMP/18,000 VOLTS
HIGH VOLTAGE
MULTIPLIER RECTIFIER STACK

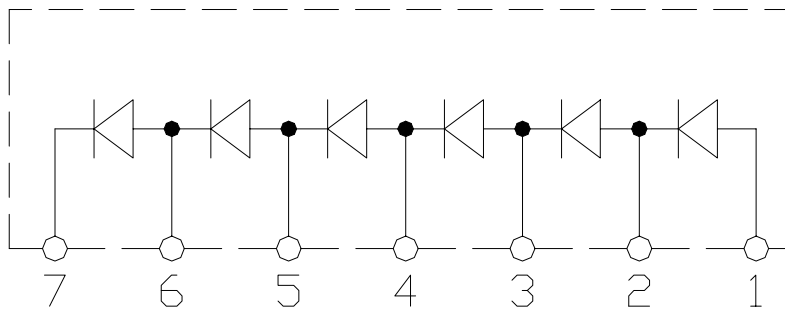
- FEATURES:**
- Aerospace High Voltage Power Supply Applications.
 - High Blocking Voltage - 18kV minimum.
 - Low Mechanical Stress Design.
 - Excellent Thermal Management - 2.5°C/W.
 - TX, TXV, and Space Level Screening Available.
 - Consult Factory for:
 - Higher Blocking Voltages;
 - Faster Switching Speeds;
 - Other Electrical Configurations.



MAXIMUM RATINGS

CHARACTERISTIC	SYMBOL	VALUE	UNIT
Peak Repetitive Reverse and DC Blocking Voltage (each rectifier)	V_{RM} V_{RWM} V_R	6,000	Volts
Average Rectified Forward Current (Non-repetitive, t = 8.3 ms Pulse)	I_O	3	Amps
Peak Surge Current (Non-repetitive, t = 8.3 ms Pulse, $T_A = 25^\circ C$)	I_{FSM}	25	Amps
Operating Temperature Range	T_{OP}	-65 TO +150	°C
Storage Temperature Range	T_{STG}	-65 TO +150	°C
Thermal Resistance, Junction to Base	θ_{JB}	2.5	°C/W

ELECTRICAL SCHEMATIC



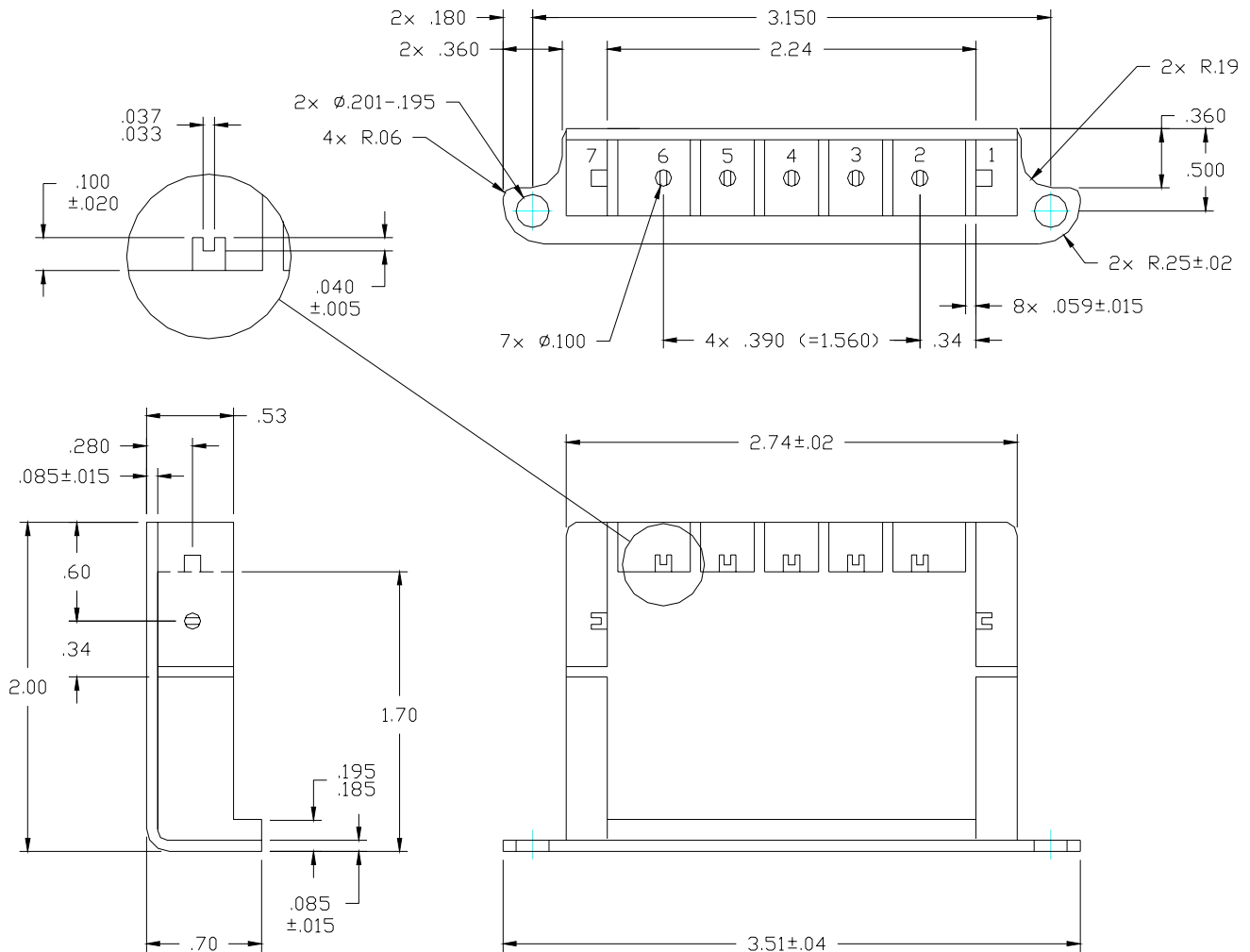
NOTE: All specifications are subject to change without notification. SCD's for these devices should be reviewed by SSDI prior to release.

DATA SHEET #: PM0005A

ELECTRICAL CHARACTERISTICS, Each Rectifier, @ T_A = 25°C (Unless Otherwise Specified)

PARAMETER	SYMBOL	MIN	MAX	UNIT
Instantaneous Forward Voltage Drop (I _F = 0.6A)	V_{F1}	-	10	Volts
Reverse Leakage (V _R = 6,000V, T _A = 25°C) (V _R = 6,000V, T _A = 100°C)	I_{R1} I_{R2}	- -	2.0 200	μAmps
Insulation Resistance (All terminals to Base @ 15,000V)	R_{INSUL1}	10	-	GΩ
Reverse Recovery Time (I _F = 0.5A, I _R = 1.0A, I _{RR} = 0.25)	t_{RR}	-	70	nsec

PACKAGE OUTLINE: ASPM



Tolerances
 (Unless specified):

- .XX ±.03
- .XXX ±.010