PRELIMINARY

SDA475-02

SOLID STATE DEVICES, INC.
14005 Stage Road * Santa Fe Springs, Ca 90670
Phone: (562) 404-4474 * Fax: (562) 404-1773

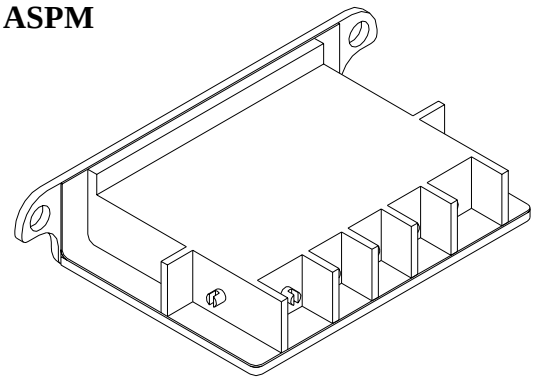
DESIGNER'S DATA SHEET

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**^{o}C/W.
- **TX, TXV, and Space Level Screening Available.**
- **Consult Factory for:**
  - **Higher Blocking Voltages;**
  - **Faster Switching Speeds;**
  - **Other Electrical Configurations.**

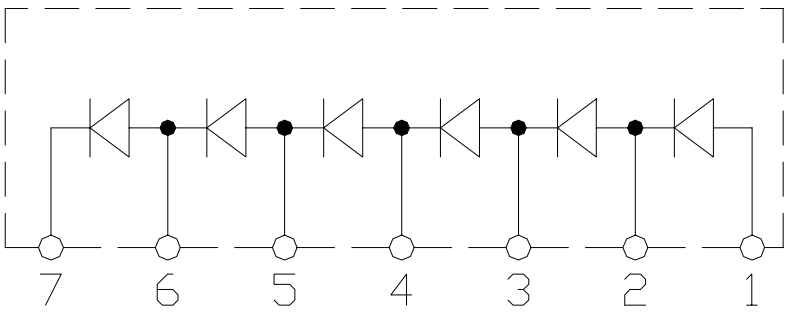
ASPM



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^{o}C)	I_{FSM}	25	Amps
Operating Temperature Range	T_{OP}	-65 TO +150	^{o}C
Storage Temperature Range	T_{STG}	-65 TO +150	^{o}C
Thermal Resistance, Junction to Base	Θ_{JB}	2.5	^{o}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

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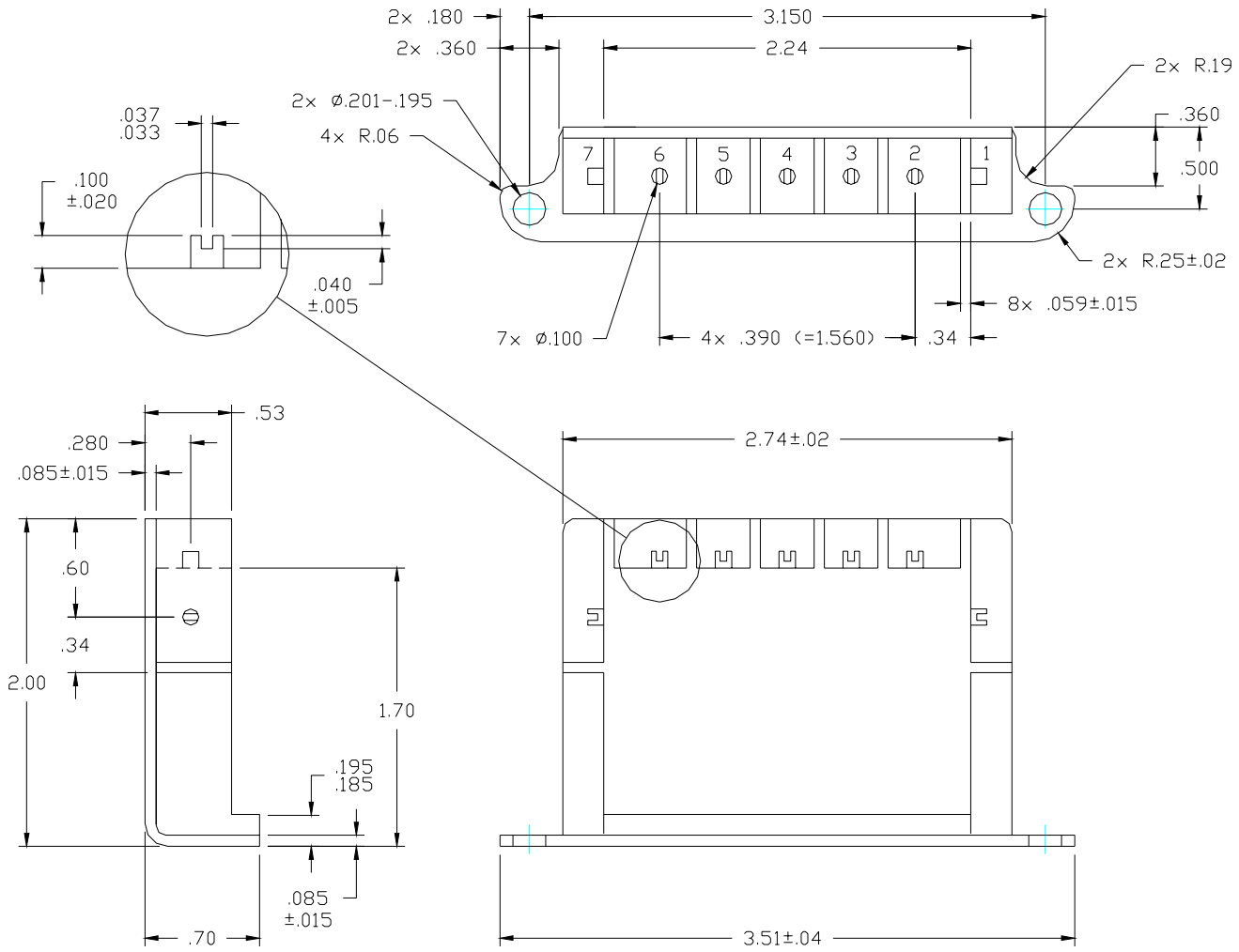
ELECTRICAL CHARACTERISTICS, Each Rectifier, **@ T_A =25°C (Unless Otherwise Specified)**

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