



PRELIMINARY

SOLID STATE DEVICES, INC.

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

DESIGNER'S DATA SHEET

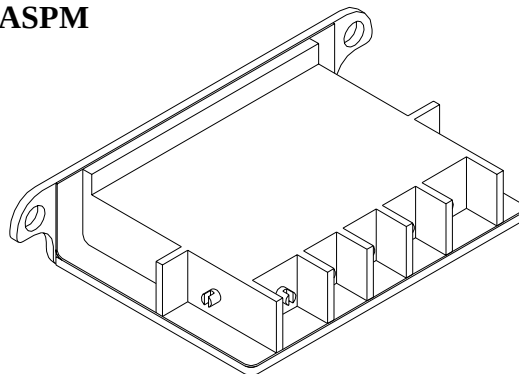
FEATURES:

- 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.

SDA475-02

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

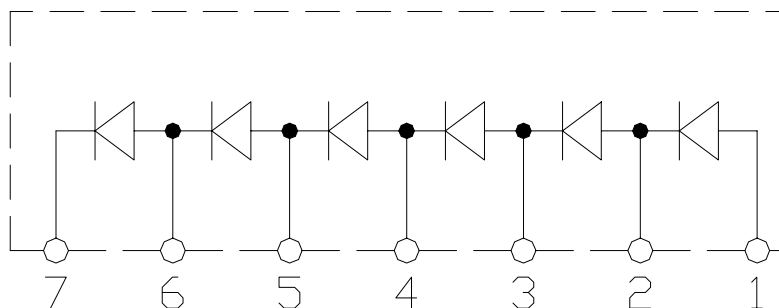
ASPM



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, $T_A = 25^\circ\text{C}$)	I_{FSM}	25	Amps
Operating Temperature Range	T_{OP}	-65 TO +150	$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-65 TO +150	$^\circ\text{C}$
Thermal Resistance, Junction to Base	Θ_{JB}	2.5	$^\circ\text{C/W}$

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

SDA475-02

PRELIMINARY

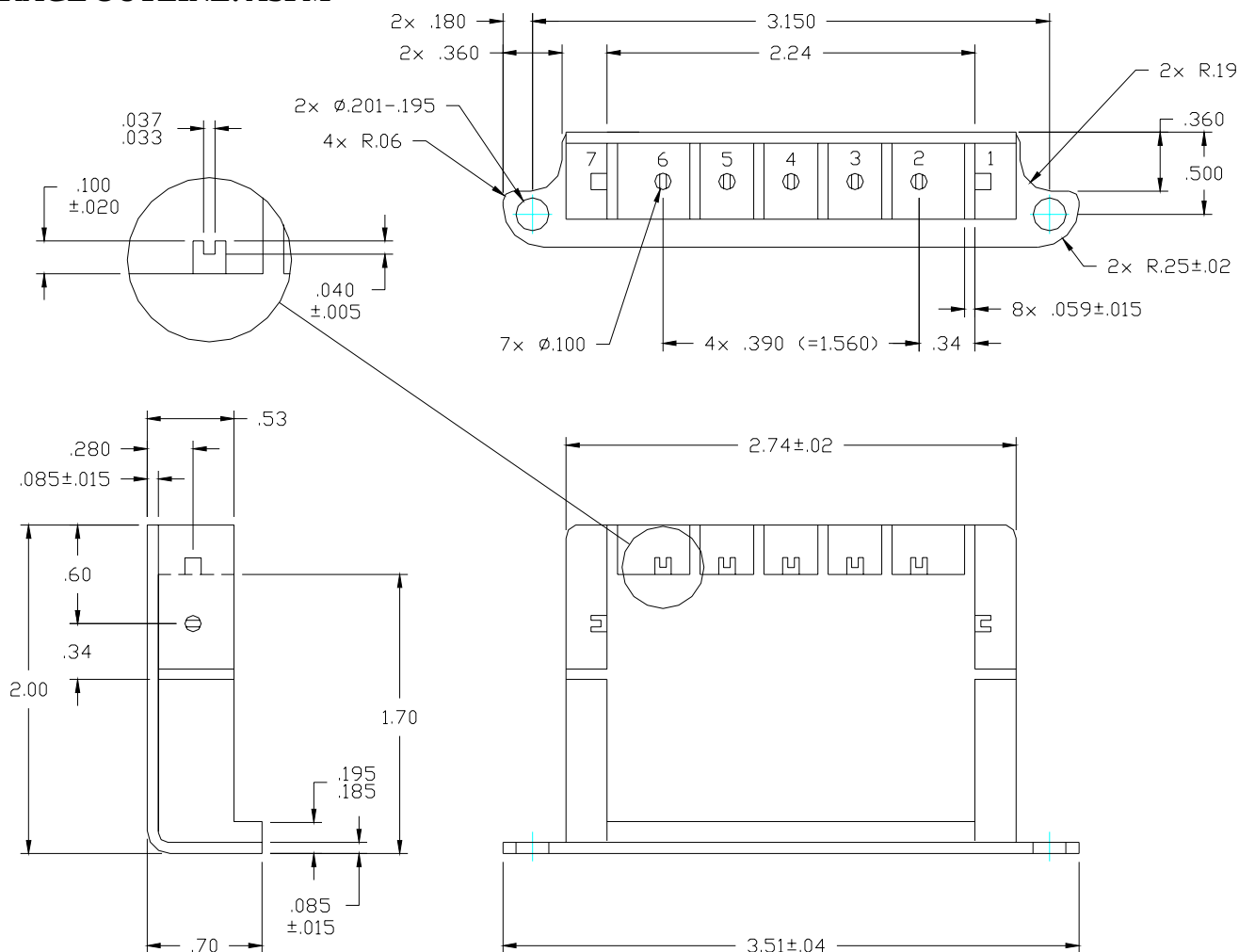


SOLID STATE DEVICES, INC.
14005 Stage Road * Santa Fe Springs, Ca 90670
Phone: (562) 404-4474 * Fax: (562) 404-1773

ELECTRICAL CHARACTERISTICS, Each Rectifier, @ $T_A = 25^\circ\text{C}$ (Unless Otherwise Specified)

PARAMETER	SYMBOL	MIN	MAX	UNIT
Instantaneous Forward Voltage Drop ($I_F = 0.6\text{A}$)	V_{F1}	-	10	Volts
Reverse Leakage ($V_R = 6,000\text{V}$, $T_A = 25^\circ\text{C}$) ($V_R = 6,000\text{V}$, $T_A = 100^\circ\text{C}$)	I_{R1} I_{R2}	- -	2.0 200	μAmps
Insulation Resistance (All terminals to Base @15,000V)	R_{INSUL1}	10	-	$\text{G}\Omega$
Reverse Recovery Time ($I_F = 0.5\text{A}$, $I_R = 1.0\text{A}$, $I_{RR} = 0.25$)	t_{RR}	-	70	nsec

PACKAGE OUTLINE: ASPM



Tolerances
(Unless specified):

.XX $\pm .03$
.XXX $\pm .010$