

HIGH VOLTAGE BRIDGE STACK

DESCRIPTION: 20,000 VOLT, 2 AMP, 75 NANOSECOND HIGH VOLTAGE MULTIPLIER.

FEATURES:

- Low thermal resistance
- Add suffix "HV" for screening per Sensitron HV Stack Screening Flow, HV-200 (SHVB0220THV)
- Compact low stress package
- Uses Vishay SF5408 glass diode

MAX. RATINGS / ELECTRICAL CHARACTERISTICS All ratings are at $T_A = 25^\circ\text{C}$ unless otherwise specified.

RATING	SYMBOL	MAX.	UNITS
PEAK INVERSE VOLTAGE (module)	PIV	20	kV
PEAK REPETITIVE REVERSE VOLTAGE (each bridge)	V_R	3300	V
AVERAGE RECTIFIED FORWARD CURRENT	I_O	2	Amps
MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT ($t = 8.3$ msec, pulse) $T_C = 25^\circ\text{C}$ (Note 1)	I_{FSM}	80	Amps
MAXIMUM OPERATING TEMPERATURE RANGE	T_{op} & T_{stg}	-65 to +150	$^\circ\text{C}$
MAXIMUM THERMAL RESISTANCE, Junction to Case	$R_{\theta JC}$	2	$^\circ\text{C/W}$

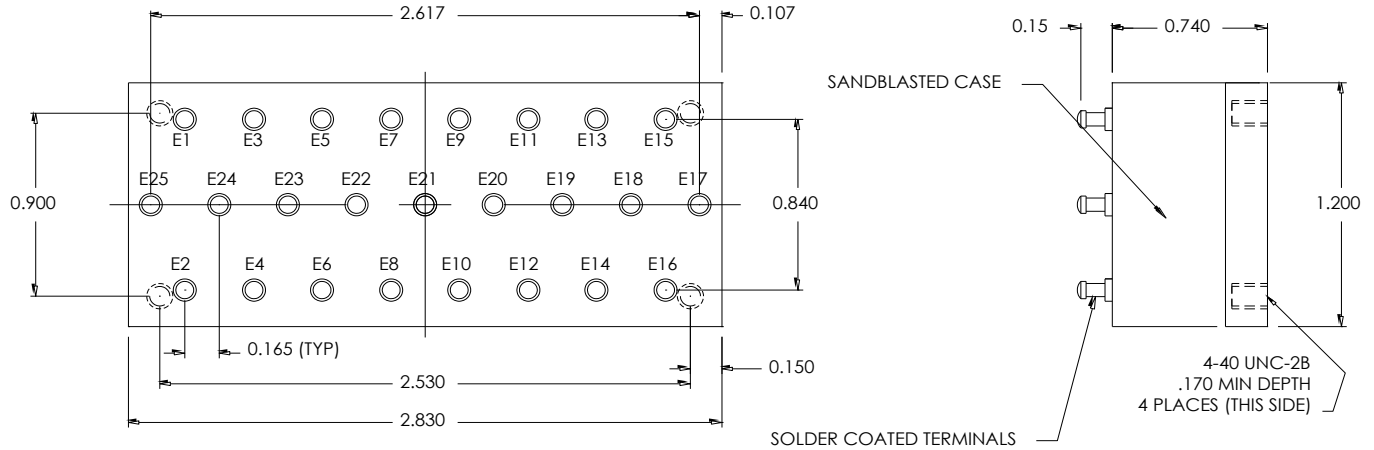
ELECTRICAL CHARACTERISTICS

All ratings are at $T_A = 25^\circ\text{C}$ unless otherwise specified.

CHARACTERISTIC, Each Bridge Leg	Min	MAX.	UNITS
MAXIMUM FORWARD VOLTAGE DROP ($I_f = 1.0$ A per leg) V_f $T_J = 25^\circ\text{C}$	--	4	Volts
MAXIMUM REVERSE CURRENT (2,500V PIV per leg) I_{r1} $T_J = 25^\circ\text{C}$ I_{r2} $T_J = 100^\circ\text{C}$	--	1.0 50	μA
INSULATION RESISTANCE @ 20kV	10		$\text{G}\Omega$
REVERSE RECOVERY TIME t_{RR} $I_F = 0.5\text{A}$, $I_R = 1\text{A}$, $I_{RR} = 0.25\text{A}$	--	75	nsec

Note 1: Surge current is tested at individual diode level.

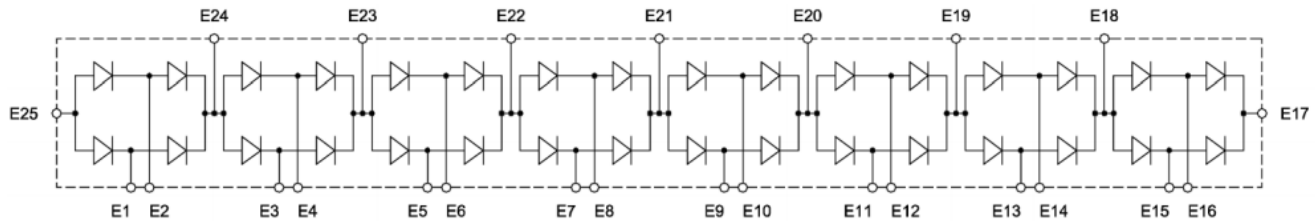
SCHEMATIC AND MECHANICAL DRAWING



TOLERANCE
(UNLESS SPECIFIED)

.XX= +/- .03

.XXX= +/- .010



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