

TECHNICAL DATA
 DATASHEET 6001, Rev. -

High Power TVS Module (39KW / 1600A) for Lightning Strike Protection in Composite Frame Aircraft

Application:

- Lightning strike protection
- Logic Board Protection and Point of Load
- 100% tested to 1600A peak current
- Surface mount or Through Hole versions available
- Bidirectional & Unidirectional versions available
- High power dissipation capability
- Low cost package

Part Numbers:

Bidirectional version:

LSP15A-1600-17 - Through Hole Version

LSP15B-1600-17- Surface Mount Version

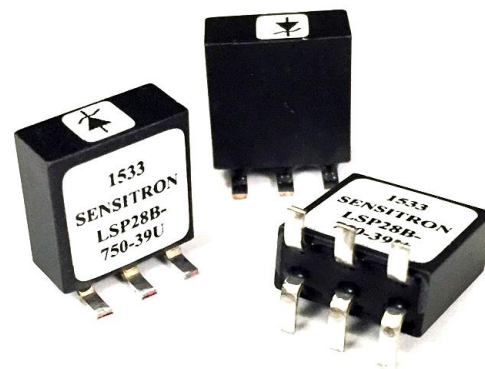
LSP15BL-1600-17 - Surface Mount Version, Low Profile

Unidirectional version:

LSP15A-1600-17U- Through Hole Version

LSP15B-1600-17U - Surface Mount Version

LSP15BL-1600-17U - Surface Mount Version, Low Profile



Protection Level:

DO-160 Section 22 Waveform 5B Level 5 waveform Compliant

Electrical Characteristics:

$T_j = 25^{\circ}\text{C}$ unless otherwise specified

PARAMETER		SYMBOL	MIN	TYP	MAX	UNIT
Peak Pulse Power	50/500 μs waveform	P_{PPM}	-	39	-	KW
Peak Pulse Current	50/500 μs waveform	I_{PPM}	1600	-	-	A
Clamp Voltage @ I_{PPM}	50/500 μs waveform	V_{CL}	-	23	24.4	V
Reverse Standoff Voltage		V_{RWM}	15	-	-	V
Reverse Leakage Current @ V_{RWM}		I_R	-	-	1	mA
Breakdown Voltage @ $I_T = 5\text{mA}$		V_{BR}	17.6	-	19.0	V
Forward Voltage @ $I_F = 10\text{A}$ (Unidirectional version only)		V_F	-	1.6	1.9	V

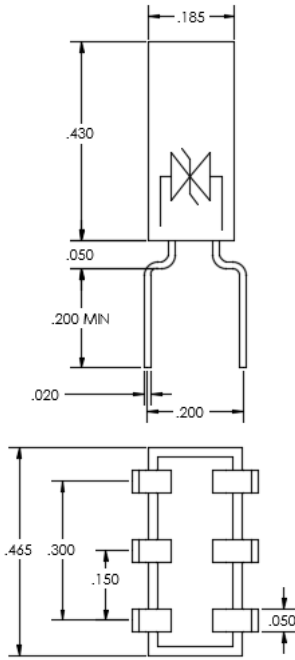
Package Characteristics

Recommended Operating Temperature Range	T_{OP}	- 40	-	85	$^{\circ}\text{C}$
Junction Temperature Range	T_J	-40	-	150	$^{\circ}\text{C}$
Storage Temperature Range	T_S	- 55	-	150	$^{\circ}\text{C}$
Module Weight	M	-	-	6	gms

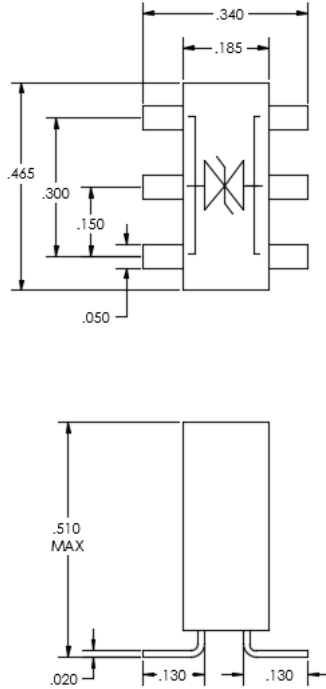
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Mechanical Drawings

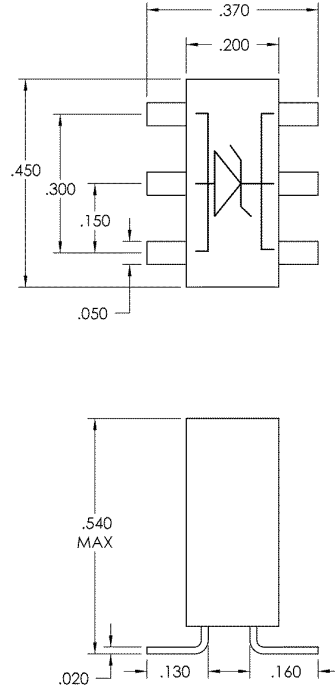
LSP15A-1600-17



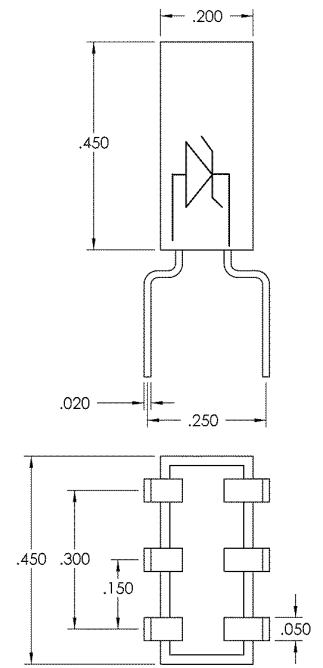
LSP15B-1600-17



LSP15B-1600-17U



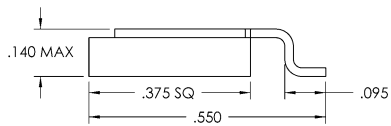
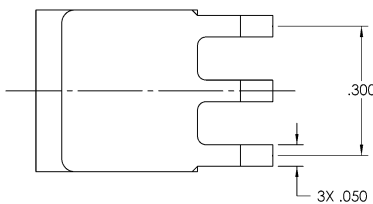
LSP15A-1600-17U



TOLERANCE UNLESS OTHERWISE NOTED = ± 0.010

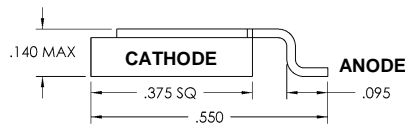
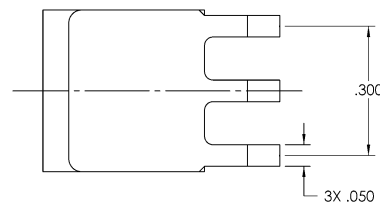
TOLERANCE UNLESS OTHERWISE NOTED = ± 0.010

LSP15BL-1600-17



TOLERANCE = ± 0.010

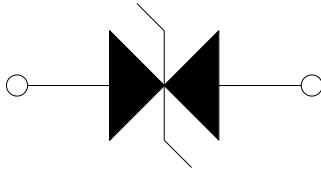
LSP15BL-1600-17U



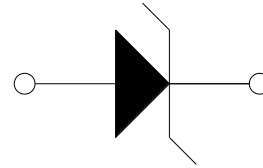
TOLERANCE = ± 0.010

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DATASHEET 6001, Rev. -

Electrical Schematic



LSP15A-1600-17 - Through Hole Version
LSP15B-1600-17 - Surface Mount Version
LSP15BL-1600-17 - Surface Mount, Low Profile Version



LSP15A-1600-17U - Through Hole Version
LSP15B-1600-17U - Surface Mount Version
LSP15BL-1600-17U - Surface Mount, Low Profile Version

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