

TECHNICAL DATA
DATASHEET 5427, Rev. E

High Power TVS Module (37KW / 750A) for Lightning Strike Protection in Composite Frame Aircraft

Application:

- Lightning strike protection
- 28V system bus protection
- 100% tested to 750A peak current
- Surface mount or Through Hole versions available
- Bidirectional & Unidirectional versions available
- High power dissipation capability
- Low cost package

Part Numbers:**Bidirectional version:**

LSP28A-750-39 - Through Hole Version

LSP28B-750-39 - Surface Mount Version

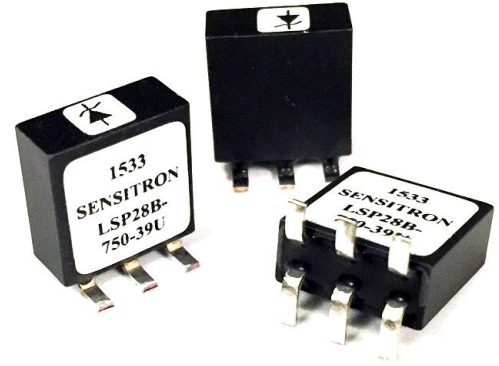
LSP28BL-750-39 - Surface Mount Version, Low Profile

Unidirectional version:

LSP28A-750-39U - Through Hole Version

LSP28B-750-39U - Surface Mount Version

LSP28BL-750-39U - Surface Mount Version, Low Profile

**Protection Level:**

DO-160 Section 22 Waveform 5 Level 4 waveform Compliant

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

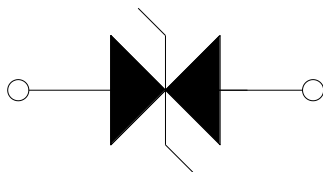
PARAMETER		SYMBOL	MIN	TYP	MAX	UNIT
Peak Pulse Power	50/500 μs waveform	P_{PPM}	-	37	-	KW
Peak Pulse Current	50/500 μs waveform	I_{PPM}	750	-	-	A
Clamp Voltage @ I_{PPM}	50/500 μs waveform	V_{CL}	-	48	51	V
Reverse Standoff Voltage		V_{RWM}	33	-	-	V
Reverse Leakage Current @ V_{RWM}		I_{R}	-	-	30	μA
Breakdown Voltage @ $I_{\text{T}} = 5\text{mA}$		V_{BR}	39	-	43	V
Forward Voltage @ $I_{\text{F}} = 10\text{A}$ (Unidirectional version only)		V_{F}	-	1.6	1.9	V

Package Characteristics

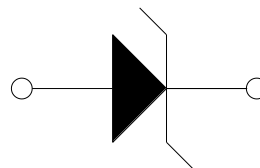
Recommended Operating Temperature Range	T_{OP}	- 55	-	85	$^{\circ}\text{C}$
Junction Temperature Range	T_{J}	- 55	-	150	$^{\circ}\text{C}$
Storage Temperature Range	T_{S}	- 55	-	150	$^{\circ}\text{C}$
Module Weight	M	-	-	6	gms

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Electrical Schematic

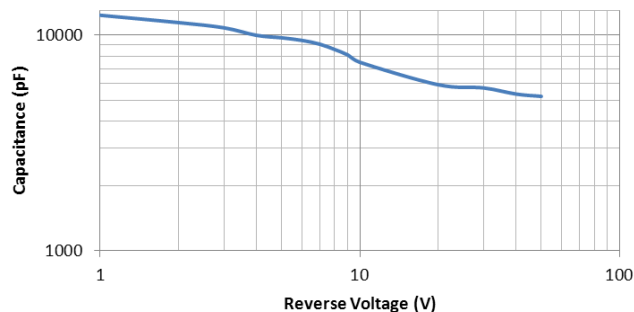


LSP28A-750-39 - Through Hole Version
LSP28B-750-39 - Surface Mount Version
LSP28BL-750-39 - Surface Mount, Low Profile Version

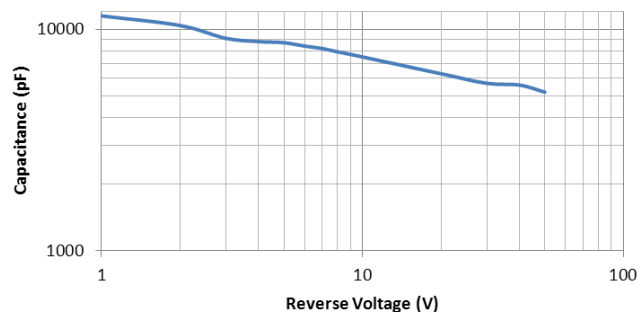


LSP28A-750-39U - Through Hole Version
LSP28B-750-39U - Surface Mount Version
LSP28BL-750-39U - Surface Mount, Low Profile Version

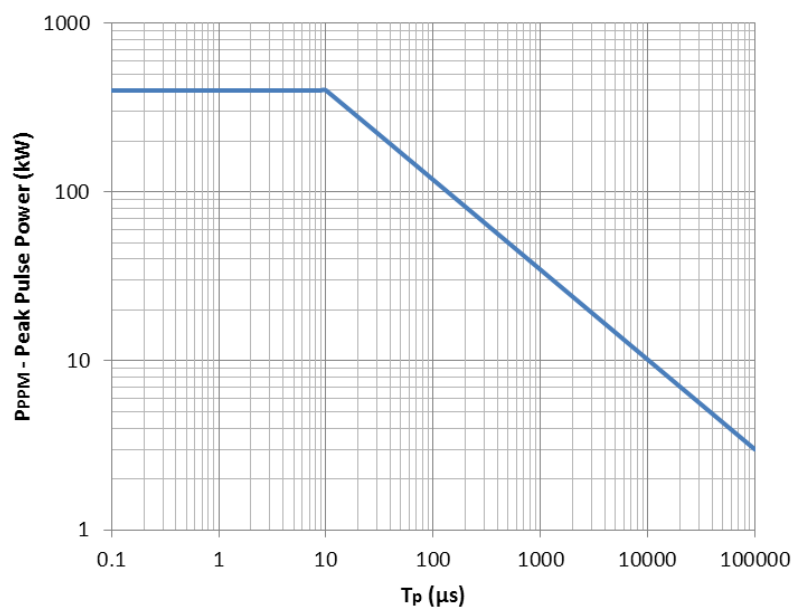
Typical Junction Capacitance



Typical Junction Capacitance



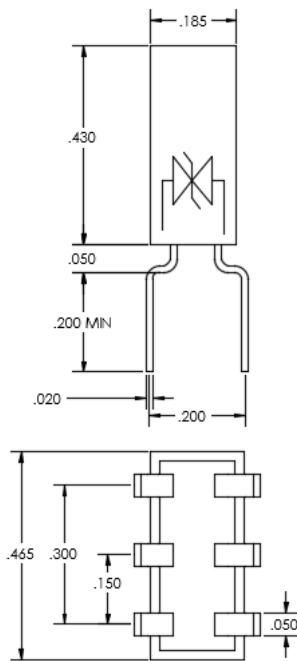
Peak Pulse Power Rating Curve



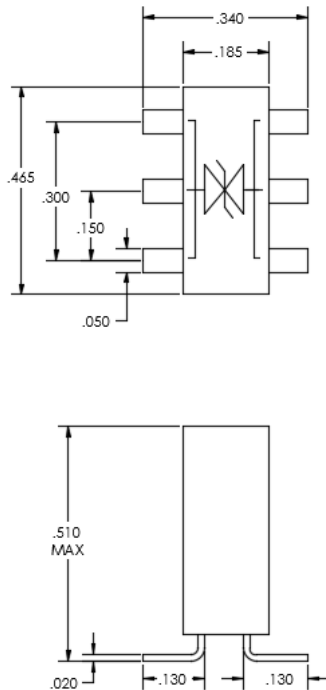
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Mechanical Drawings

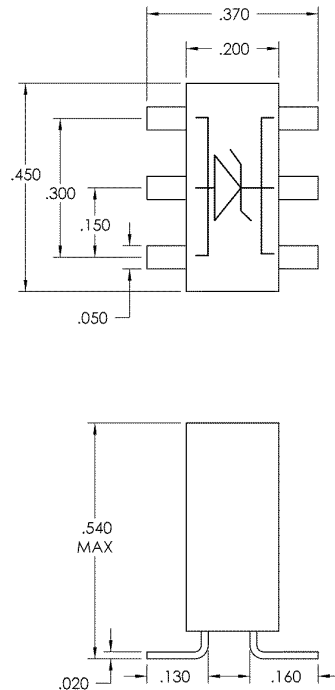
LSP28A-750-39



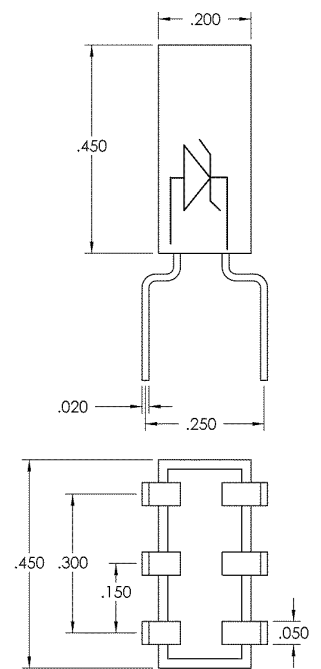
LSP28B-750-39



LSP28B-750-39U



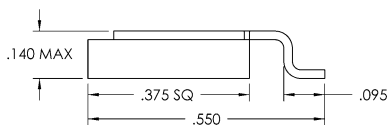
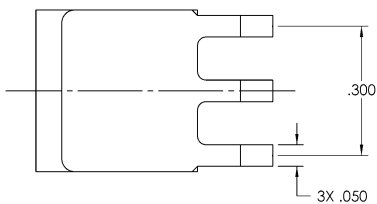
LSP28A-750-39U



TOLERANCE UNLESS OTHERWISE NOTED = ± 0.010

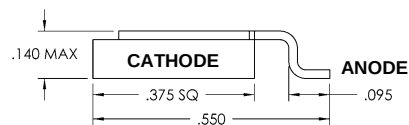
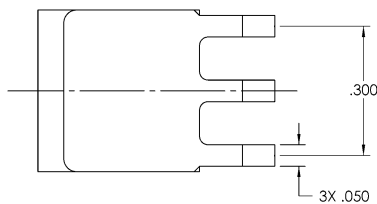
TOLERANCE UNLESS OTHERWISE NOTED = ± 0.010

LSP28BL-750-39



TOLERANCE = ± 0.010

LSP28BL-750-39U



TOLERANCE = ± 0.010

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