

Absolute Maximum Ratings

Parameter	Rating	Units
Peak Pulse Power ($t_p=8/20\mu s$)	750	W
Peak Pulse Current ($t_p=8/20\mu s$)	30	A
Operating Temperature	-40 to 125	°C
Storage Temperature	-55 to 150	°C

CAUTION: Stresses above those listed in "Absolute Maximum Ratings" may cause permanent damage to the device. This is a stress only rating and operation of the device at these or any other conditions above those indicated in the operational sections of this specification is not implied.

Thermal Information

Parameter	Rating	Units
Storage Temperature Range	-55 to 150	°C
Maximum Junction Temperature	150	°C
Maximum Lead Temperature (Soldering 20-40s)	260	°C

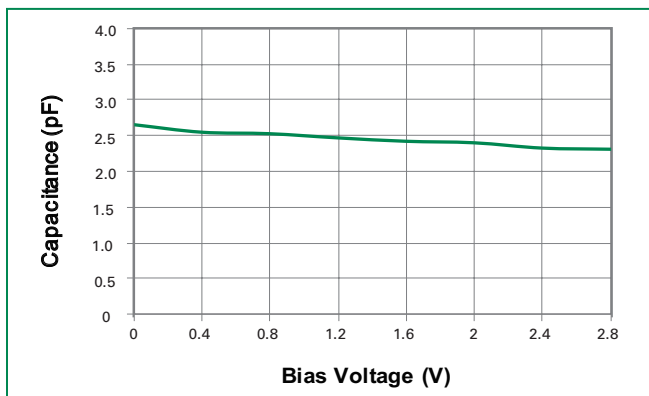
Electrical Characteristics ($T_{op} = 25^{\circ}C$)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Units
Reverse Standoff Voltage	V_{RWM}	$I_R \leq 1\mu A$ (Each Line)			2.8	V
Reverse Breakdown Voltage	V_{BR}	$I_T = 2\mu A$ (Each Line)	3.0			V
Snapback Voltage	V_{SB}	$I_{SB} = 50mA$	2.8			V
Reverse Leakage Current	I_{LEAK}	$V_R = 2.8V$ (Each Line)			0.1	μA
Clamping Voltage ¹	V_C	$I_{PP} = 5A, t_p = 8/20\mu s$ (Each Line)			8.5	V
		$I_{PP} = 24A, t_p = 8/20\mu s$ (Each Line)			17	
ESD Withstand Voltage ¹	V_{ESD}	IEC61000-4-2 (Contact)	± 30			kV
		IEC61000-4-2 (Air)	± 30			
Dynamic Resistance ²	R_{DYN}	TLP $t_p = 100ns$, (Each Line)		0.3		Ω
Diode Capacitance ¹	C_D	$V_R = 0V, f = 1MHz$ (Each Line)		2.6	3.0	pF

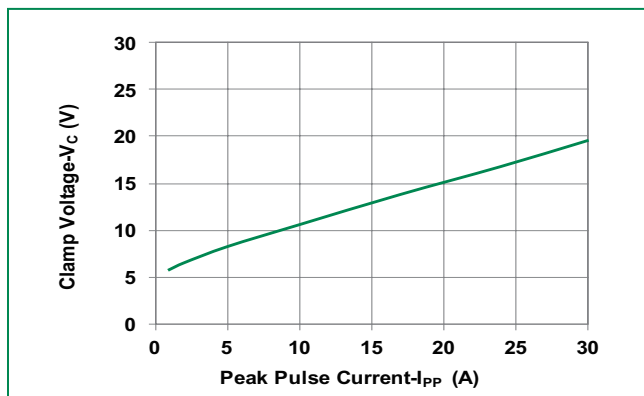
Note: 1 Parameter is guaranteed by design and/or device characterization.

2 Transmission Line Pulse (TLP) test setting : Std.TDR(50 Ω), $t_p = 100ns$, $t_r = 0.2ns$ ITLP and VTLP averaging window: star $t_1 = 70ns$ to end $t_2 = 80ns$

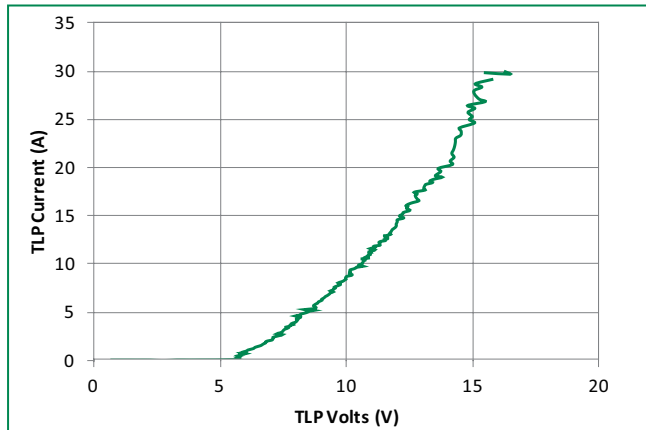
Capacitance vs. Reverse Bias (Each line)



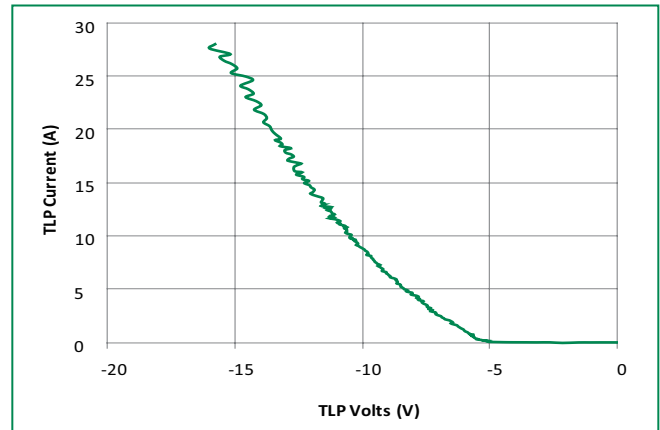
Clamping Voltage vs. Peak Pulse Current (Each line)



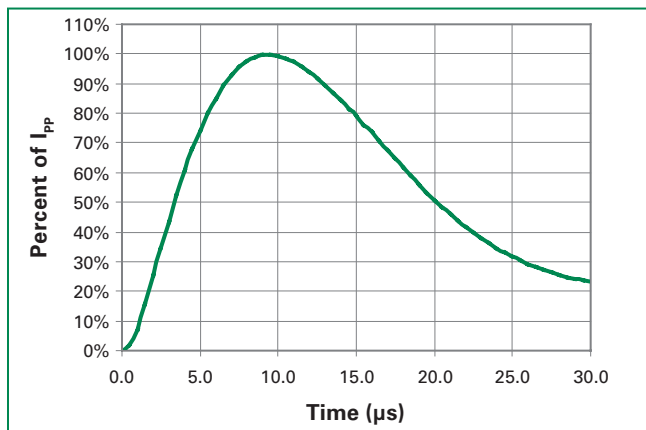
Positive Transmission Line Pulsing (TLP) Plot (Each line)



Negative Transmission Line Pulsing (TLP) Plot (Each line)



8/20 μ s Pulse Waveform



Product Characteristics

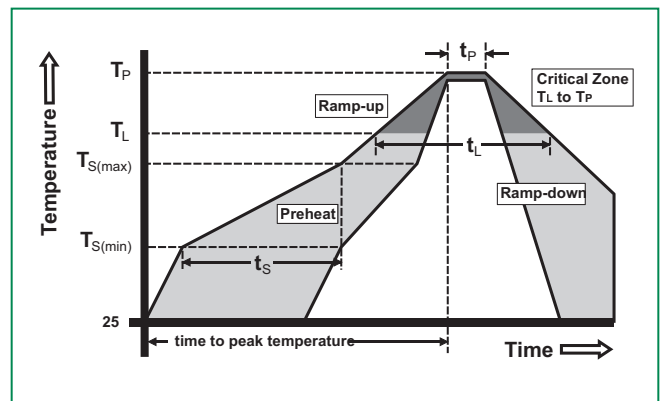
Lead Plating	Matte Tin
Lead Material	Copper Alloy
Lead Coplanarity	0.0004 inches (0.102mm)
Substrate material	Silicon
Body Material	V-0 per UL 94 Molded Epoxy

Notes :

1. All dimensions are in millimeters
2. Dimensions include solder plating.
3. Dimensions are exclusive of mold flash & metal burr.
4. All specifications comply to JEDEC SPEC MO-203 Issue A
5. Blo is facing up for mold and facing down for trim/form, i.e. reverse trim/form.
6. Package surface matte finish VDI 11-13.

Soldering Parameters

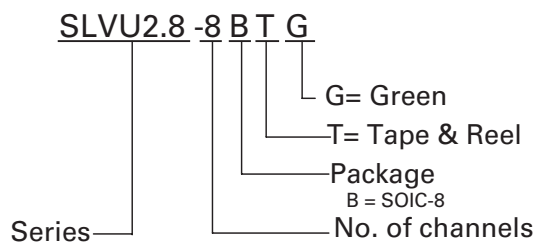
Reflow Condition		Pb – Free assembly
Pre Heat	- Temperature Min ($T_{s(min)}$)	150°C
	- Temperature Max ($T_{s(max)}$)	200°C
	- Time (min to max) (t_s)	60 – 180 secs
Average ramp up rate (Liquidus) Temp (T_L) to peak		5°C/second max
$T_{s(max)}$ to T_L - Ramp-up Rate		5°C/second max
Reflow	- Temperature (T_L) (Liquidus)	217°C
	- Temperature (t_L)	60 – 150 seconds
Peak Temperature (T_p)		260 $\pm$ 0.5 °C
Time within 5°C of actual peak Temperature (t_p)		20 – 40 seconds
Ramp-down Rate		5°C/second max
Time 25°C to peak Temperature (T_p)		8 minutes Max.
Do not exceed		260°C



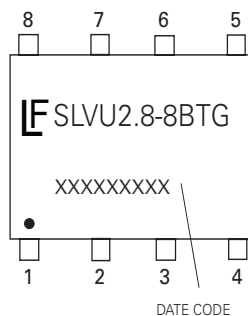
Ordering Information

Part Number	Package	Min. Order Qty.
SLVU2.8-8BTG	SOIC-8	2500

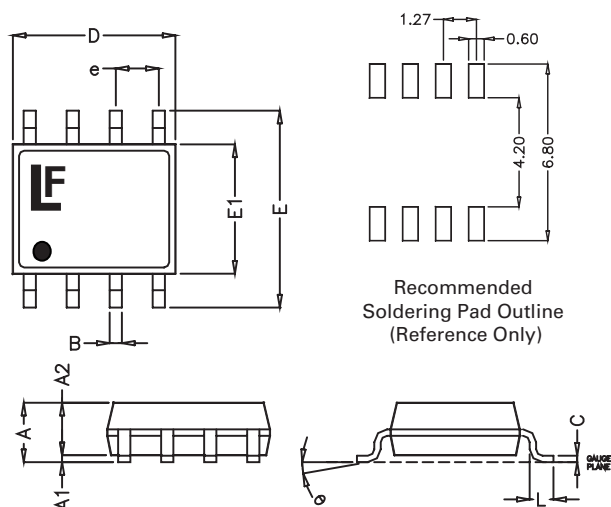
Part Numbering System



Part Marking System

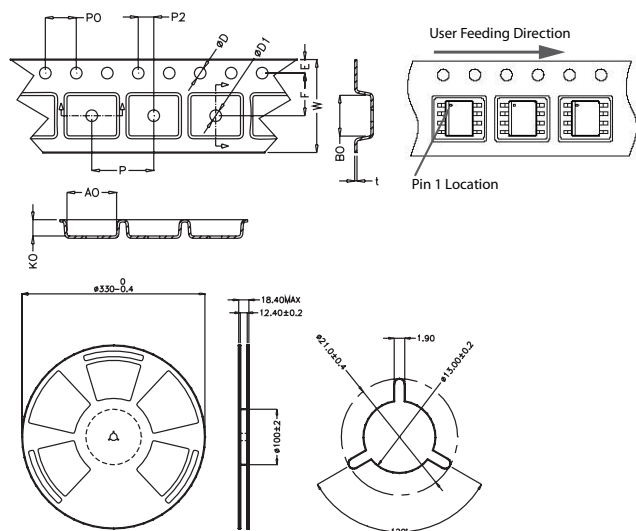


Package Dimensions — Mechanical Drawings and Recommended Solder Pad Outline



Package	SOIC-8			
Pins	8			
JEDEC	MS-012			
	Millimetres		Inches	
	Min	Max	Min	Max
A	1.35	1.75	0.053	0.069
A1	0.10	0.25	0.004	0.010
A2	1.25	1.65	0.050	0.065
B	0.31	0.51	0.012	0.020
c	0.17	0.25	0.007	0.010
D	4.80	5.00	0.189	0.197
E	5.80	6.20	0.228	0.244
E1	3.80	4.00	0.150	0.157
e	1.27 BSC		0.050 BSC	
L	0.40	1.27	0.016	0.050

Embossed Carrier Tape & Reel Specification — SOIC Package



Symbol	Millimetres		Inches	
	Min	Max	Min	Max
E	1.65	1.85	0.065	0.073
F	5.4	5.6	0.213	0.22
P2	1.9	2.1	0.075	0.083
D	1.5	1.6	0.059	0.063
D1	1.50 Min		0.059 Min	
P0	3.9	4.1	0.154	0.161
10P0	40.0 +/- 0.20		1.574 +/- 0.008	
W	11.9	12.1	0.468	0.476
P	7.9	8.1	0.311	0.319
A0	6.3	6.5	0.248	0.256
B0	5.1	5.3	0.2	0.209
K0	2	2.2	0.079	0.087
t	0.30 +/- 0.05		0.012 +/- 0.002	