

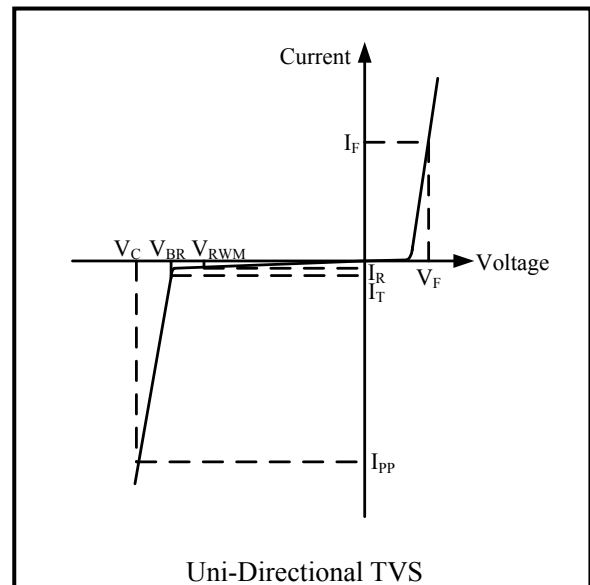


### Absolute Maximum Rating

Symbol	Parameter	Value	Units
$V_{ESD}$	ESD per IEC 61000-4-2 (Air) ESD per IEC 61000-4-2 (Contact)	$\pm 30$ $\pm 30$	kV
$I_{PP}$	Peak Pulse Current(8/20us)	25	A
$T_{OPT}$	Operating Temperature	-55/+150	°C
$T_{STG}$	Storage Temperature	-55/+150	°C
$T_L$	Lead Soldering Temperature	260 (10 sec.)	°C

### Electrical Characteristics (T = 25°C)

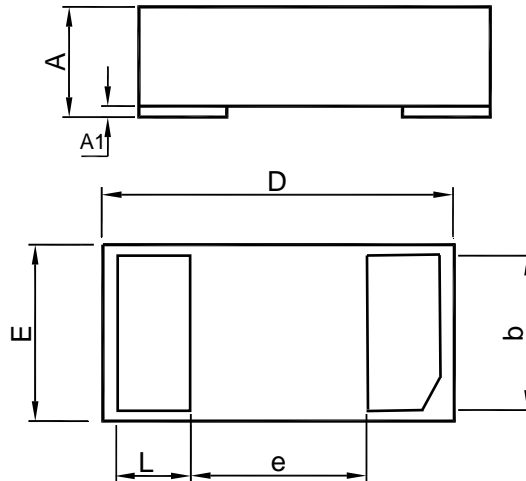
Symbol	Parameter
$V_{RWM}$	Nominal Reverse Working Voltage
$I_R$	Reverse Leakage Current @ $V_{RWM}$
$V_{t1}$	Trigger Voltage
$I_{t1}$	Trigger Current @ $V_{t1}$
$V_h$	Holding Voltage
$I_h$	Holding Current @ $V_h$
$V_C$	Clamping Voltage @ $I_{PP}$
$V_{CR}$	Reverse Clamping Voltage @ $I_{PP}$
$I_{PP}$	Maximum Peak Pulse Current
$C_{ESD}$	Parasitic Capacitance



Symbol	Test Condition	Minimum	Typical	Maximum	Units
$V_{RWM}$				12.0	V
$I_R$	$V_{RWM} = 12.0V, T = 25^\circ C$		0.01	0.1	$\mu A$
$V_{BR}$	$I_T = 1mA$	13.3			V
$V_F$	$I_T = 1mA$			0.9	V
$V_C$	$I_{PP} = 1A, t_p = 8/20\mu s$			18.0	V
$V_C$	$I_{PP} = 5A, t_p = 8/20\mu s$			20.0	V
$V_C$	$I_{PP} = 25A, t_p = 8/20\mu s$			30.0	V
$C_{ESD}$	$V_R = 0V, f = 1MHz$			160	pF

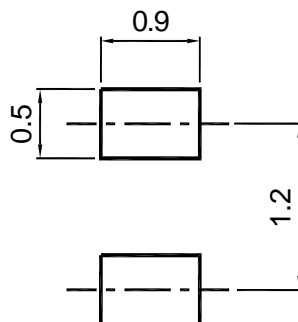
## Package Outline Dimensions

- DFN1610-2L Package
- MSL-1



UNIT	A	A1	b	D	E	e	L
mm	0.55	0.05	0.85	1.65	1.05	0.75	0.45
	0.45	0	0.75	1.55	0.95	0.65	0.35

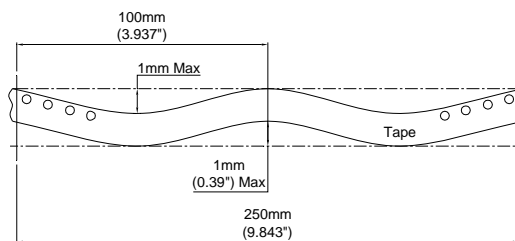
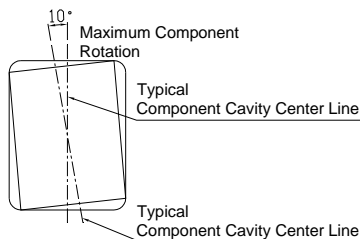
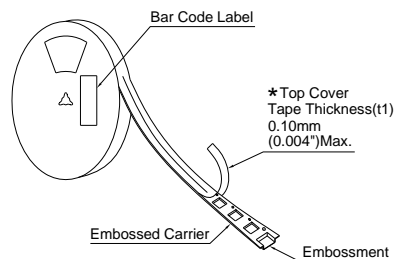
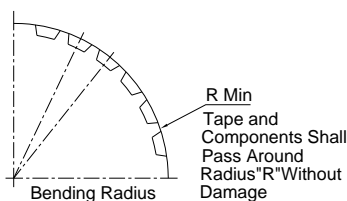
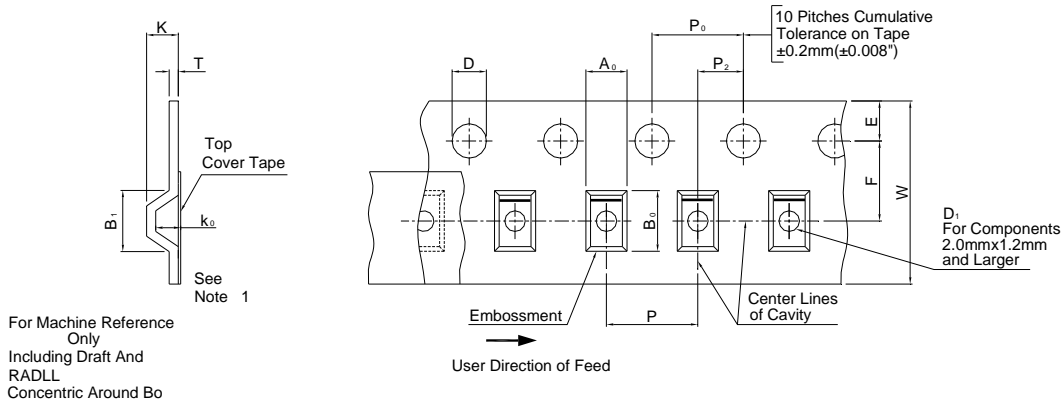
## Recommended Soldering Footprint



## Packing information

Package	Tape Width (mm)	Pitch		Reel Size		Per Reel Packing Quantity
		mm	inch	mm	inch	
DFN1610-2L	8	4 ± 0.1	0.157 ± 0.004	178	7	3,000

## Tape and Reel Specification



Camber (Top View)

Allowable Camber To Lmm/100mm Nonaccumulative Over 250mm

### Dimensions

Tape Size	B1 Max.	D	D1	E	F	K	P0	P2	R Min.	T Max.	W Max.
8 mm	4.55mm (0.179")	1.5 +0.1mm -0.0 (0.059")	1.0 mm Min (0.039")	1.75± 0.1 mm (0.069± 0.004")	3.5 ± 0.05 mm (0.138 ± 0.002")	2.4 mm Max (0.094")	4 ± 0.1 mm (0.157 ± 0.004")	2 ± 0.1 mm (0.079 ± 0.002")	25 mm (0.98")	0.6 mm (0.024")	8.3 mm (0.327")
12 mm	8.2mm (0.323")	1.5 +0.1mm -0.0 (0.059")	1.5 mm Min (0.060")	1.75± 0.1 mm (0.069± 0.004")	5.5 ± 0.05 mm (0.217 ± 0.002")	6.4 mm Max (0.252")	4 ± 0.1 mm (0.157 ± 0.004")	2 ± 0.05 mm (0.079 ± 0.002")	30 mm (1.18")		12 ± 0.30 mm (0.47±0.012")

Metric dimensions govern-English are in parentheses for reference only.

Note 1: A<sub>0</sub>, B<sub>0</sub>, and K<sub>0</sub> are determined by component size. The clearance between the components and the cavity must be within 0.05 mm min. to 0.5 mm max.

The component cannot rotate more than 10° within the determined cavity.

 If B<sub>1</sub> exceeds 4.2 mm(0.165") for 8 mm embossed tape, the tape may not feed through all tape feeders.

### Marking Codes



Note:

(1) "SB3D" is part number, fixed

### Ordering Information

Part Number	Working Voltage	Quantity Per Reel	Reel Size
TS1231LDX	12.0V	3,000	7 Inch

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