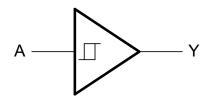


Pin Descriptions

Pin Name	Description
Α	Data Input
GND	Ground
Υ	Data Output
V _{CC}	Supply Voltage

Logic Diagram



Function Table

Input	Output
Α	Υ
Н	Н
L	L

Absolute Maximum Ratings (Notes 4 & 5)

Symbol	Description	Rating	Unit
ESD HBM	Human Body Model ESD Protection	2	kV
ESD CDM	Charged Device Model ESD Protection	1	kV
V _{CC}	Supply Voltage Range	-0.5 to 6.5	V
VI	Input Voltage Range	-0.5 to 6.5	V
Vo	Voltage Applied to Output in High Impedance or I _{OFF} State	-0.5 to 6.5	V
Vo	Voltage Applied to Output in High or Low State	-0.5 to V _{CC} + 0.5	V
I _{IK}	Input Clamp Current V _I < 0	-50	mA
lok	Output Clamp Current	-50	mA
I _O	Continuous Output Current	±50	mA
I _{CC} , I _{GND}	Continuous Current through V _{CC} or GND	±100	mA
TJ	Operating Junction Temperature	-40 to +150	°C
T _{STG}	Storage Temperature	-65 to +150	°C

- 4. Stresses beyond the absolute maximum can result in immediate failure or reduced reliability. These are stress values and device operation should be within recommend values.
- 5. Forcing the maximum allowed voltage could cause a condition exceeding the maximum current or conversely forcing the maximum current could cause a condition exceeding the maximum voltage. The ratings of both current and voltage must be maintained within the controlled range.



Recommended Operating Conditions (Note 6)

Symbol		Parameter	Min	Max	Unit	
V	On a ration Valtage	Operating	1.65	5.5	V	
Vcc	Operating Voltage	Data retention only	1.5	_	V	
VI	Input Voltage		0	5.5	V	
Vo	Output Voltage		0	V _{CC}	V	
		V _{CC} = 1.65V	_	-4		
		V _{CC} = 2.3V	_	-8		
	High Lavel Output accessed	V _{CC} = 2.7V	_	-12		
Іон	High-Level Output current	V _{0.0} = 2V	_	-16	mA	
		V _{CC} = 3V	_	-24		
		V _{CC} = 4.5V		-32		
		V _{CC} = 1.65V	_	4		
		V _{CC} = 2.3V	_	8		
	Lavel aval Outrot access	V _{CC} = 2.7V	_	12	A	
l _{OL}	Low-Level Output current	V - 2V	_	16	mA	
		$V_{CC} = 3V$	_	24		
		V _{CC} = 4.5V	_	32		
T _A	Operating Free-Air Temperature	_	-40	+125	°C	

Note:

6. Unused inputs should be held at $V_{\mbox{\footnotesize{CC}}}$ or Ground.



Electrical Characteristics (@ T_A = -40°C to +85°C. All typical values are at V_{CC} = 3.3V, T_A = +25°C.)

Symbol	Parameter	Test Conditions	V _{CC}	Min	Тур	Max	Unit
		_	1.65V	0.70	_	1.20	_
		_	2.3V	1.11	_	1.60	_
V_{T+}	Positive-Going Input	_	3V	1.50	_	2.00	_
	Threshold Voltage	_	4.5V	2.16	_	2.74	_
		_	5.5V	2.61	_	3.33	_
		_	1.65V	0.30	_	0.72	_
		_	2.3V	0.58	_	1.00	_
V_{T-}	Negative-Going Input	_	3V	0.80	_	1.30	_
	Threshold Voltage	_	4.5V	1.21	_	1.95	_
		_	5.5V	1.45	_	2.35	_
		_	1.65V	0.30	_	0.62	_
		_	2.3V	0.40	_	0.80	_
ΔV_T	Hysteresis (V _{T+} - V _{T-})	_	3V	0.35	_	1.00	_
		_	4.5V	0.55	_	1.10	_
		_	5.5V	0.60	_	1.20	_
		I _{OH} = -100μA	1.65V to 5.5V	V _{CC} – 0.1	_	_	
		I _{OH} = -4mA	1.65V	1.2	_	_	
		I _{OH} = -8mA	2.3V	1.9	_	_	
Voh	High Level Output Voltage	I _{OH} = -12mA	2.7V	2.2	_	_	V
		I _{OH} = -16mA		2.4	_	_	
		I _{OH} = -24mA	3V	2.3	_		
		I _{OH} = -32mA	4.5V	3.8	_	_	
		I _{OL} = 100μA	1.65V to 5.5V	_	_	0.1	
		I _{OL} = 4mA	1.65V	_	_	0.45	
		I _{OL} = 8mA	2.3V	_	_	0.3	
V_{OL}	Low-Level Output Voltage	I _{OL} = 12mA	2.7V	_	_	0.4	V
		I _{OL} = 16mA		_	_	0.4	
		I _{OL} = 24mA	3V	_	_	0.55	
		I _{OL} = 32mA	4.5V	_	_	0.55	
II	Input Current	V _I = 5.5V or GND	0 to 5.5V	_	_	± 5	μA
loff	Power Down Leakage Current		0	_	_	± 10	μA
Icc	Supply Current	V _I = 5.5V of GND I _O = 0	1.65V to 5.5V	_	_	10	μΑ
Δlcc	Additional Supply Current	Input at V _{CC} – 0.6V	3V to 5.5V	_	_	500	μA



Electrical Characteristics (continued) (@ T_A = -40°C to +125°C. All typical values are at V_{CC} = 3.3V, T_A = +25°C.)

Symbol	Parameter	Test Conditions	Vcc	Min	Тур	Max	Unit
		_	1.65V	0.70	_	1.20	_
		_	2.3V	1.11	_	1.60	_
V_{T^+}	Positive-Going Input Threshold Voltage	_	3V	1.50	_	2.00	_
	Threshold voltage	_	4.5V	2.16	_	2.74	_
		_	5.5V	2.61	_	3.33	_
		_	1.65V	0.30	_	0.75	_
		_	2.3V	0.58	_	1.03	_
V_{T-}	Negative-Going Input	_	3V	0.80	_	1.33	_
	Threshold Voltage	_	4.5V	1.21	_	1.95	_
		_	5.5V	1.45	_	2.35	_
		_	1.65V	0.30	_	0.62	_
		_	2.3V	0.37	_	0.80	_
ΔV_T	Hysteresis	_	3V	0.32	_	1.00	_
	(V _{T+} - V _{T-})	_	4.5V	0.50	_	1.20	_
		_	5.5V	0.55	_	1.40	_
		I _{OH} = -100μA	1.65V to 5.5V	V _{CC} - 0.1	_	_	
		I _{OH} = -4mA	1.65V	0.95	_	_	
		I _{OH} = -8mA	2.3V	1.7	_	_	
Voh	High Level Output Voltage	I _{OH} = -12mA	2.7V	1.9	_	_	V
		I _{OH} = -16mA	0) (2.2	_	_	
		I _{OH} = -24mA	3V	2.0	_	_	
		I _{OH} = -32mA	4.5V	3.4	_	_	
		I _{OL} = 100μA	1.65V to 5.5V	_	_	0.1	
		I _{OL} = 4mA	1.65V	_	_	0.7	
		I _{OL} = 8mA	2.3V	_	_	0.45	
V _{OL}	Low-Level Output Voltage	I _{OL} = 12mA	2.7V	_	_	0.6	V
		I _{OL} = 16mA	0) /	_	_	0.6	
		I _{OL} = 24mA	3V	_	_	0.8	
		I _{OL} = 32mA	4.5V	_	_	0.8	
II	Input Current	V _I = 5.5V or GND	0 to 5.5V	_	_	±5	μA
loff	Power Down Leakage Current	V_1 or $V_0 = 5.5V$	0	_	_	±10	μA
Icc	Supply Current	V _I = 5.5V of GND I _O = 0	1.65V to 5.5V	_	_	10	μΑ
Δl _{CC}	Additional Supply Current	Input at V _{CC} – 0.6V	3V to 5.5V	_	_	500	μΑ



Package Characteristics (All typical values are at V_{CC} = 3.3V, T_A = +25°C.)

Symbol	Parameter	Test Conditions	Vcc	Min	Тур	Max	Unit
	Thermal Resistance Junction-to-Ambient	SOT25		_	204	_	
		SOT353		_	371	_	
		SOT553		_	231	_	
θ_{JA}		X2-DFN0808-4	(Note 7)	_	400	_	°C/W
	Junction-to-Ambient	X2-DFN1010-6	_	445	_		
		X2-DFN1409-6		_	470	_	
		X2-DFN1410-6		_	460	_	
		SOT25		_	52	_	
		SOT353		_	143	_	
		SOT553		_	105	_	
θЈС	Thermal Resistance	X2-DFN0808-4	(Note 7)	_	225	_	°C/W
	Junction-to-Case	X2-DFN1010-6		_	250	_	
		X2-DFN1409-6		_	275	_	
		X2-DFN1410-6		_	265	_	

Note:

Switching Characteristics

 $T_A = -40$ °C to +85°C, $C_L = 15$ pF as noted (See Figure 1)

Parameter	From To		V _{CC} = 1.8V ± 0.15V		V _{CC} = 2.5V ± 0.2V		V _{CC} = 3.3V ± 0.3V		V _{CC} = 5V ± 0.5V		Unit
	Input	Output	Min	Max	Min	Max	Min	Max	Min	Max	
t _{PD}	Α	Υ	1.0	9.9	0.7	5.5	0.7	4.6	0.7	4.4	ns

 T_A = -40°C to +85°C, C_L = 30pF or 50pF as noted (See Figure 2)

Parameter	From	То	V _{CC} = 1.8V ± 0.15V		V _{CC} = 2.5V ± 0.2V		V _{CC} = 3.3V ± 0.3V		V _{CC} = 5V ± 0.5V		Unit
	Input	t Output	Min	Max	Min	Max	Min	Max	Min	Max	
t _{PD}	Α	Υ	1.0	11	0.7	6.5	0.7	5.5	0.7	5	ns

 T_A = -40°C to +125°C, C_L = 15pF as noted (See Figure 1)

Parameter	From Input	_	V _{CC} = 1.8V ± 0.15V		V _{CC} = 2.5V ± 0.2V		V _{CC} = 3.3V ± 0.3V		V _{CC} = 5V ± 0.5V		Unit
			Min	Max	Min	Max	Min	Max	Min	Max	
t _{PD}	Α	Υ	1.0	12.5	0.7	7.5	0.7	6.5	0.7	5.5	ns

 $T_A = -40$ °C to +125°C, $C_L = 30$ pF or 50pF as noted (See Figure 2)

Parameter	From	То	V _{CC} = 1.8V To ± 0.15V		V _{CC} = 2.5V ± 0.2V		V _{CC} = 3.3V ± 0.3V		V _{CC} = 5V ± 0.5V		Unit
	Input	Input Output	Min	Max	Min	Max	Min	Max	Min	Max	
t _{PD}	Α	Y	1.0	14.0	0.7	8.5	0.7	7.0	0.7	6.5	ns

^{7.} Test condition for each of the 7 package types: Device mounted on FR-4 substrate PC board, 2oz copper, with minimum recommended pad layout.

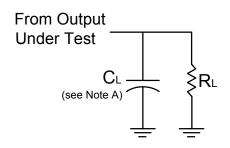


Operating Characteristics

T_A = +25°C

	Parameter	Test Conditions	V _{CC} = 1.8V	V _{CC} = 2.5V Typ	V _{CC} = 3.3V	V _{CC} = 5V Typ	Unit
C _{PD}	Power Dissipation Capacitance	f = 10MHz	20	22	23	25	pF

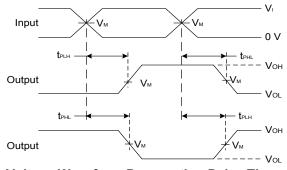
Parameter Measurement Information



V	Inputs		V		
V _{CC}	VI	t _R /t _F	V _M	CL	R∟
1.8V±0.15V	V _{CC}	≤2ns	V _{CC} /2	15pF	1ΜΩ
2.5V±0.2V	V _{CC}	≤2ns	V _{CC} /2	15pF	1ΜΩ
3.3V±0.3V	3V	≤2.5ns	1.5V	15pF	1ΜΩ
5V±0.5V	V _{CC}	≤2.5ns	V _{CC} /2	15pF	1ΜΩ



Voltage Waveform Pulse Duration



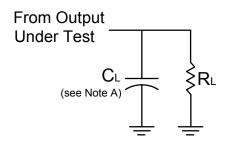
Voltage Waveform Propagation Delay Times Inverting and Non Inverting Outputs

Figure 1. Load Circuit and Voltage Waveforms

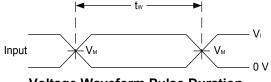
- A. Includes test lead and test apparatus capacitance. B. All pulses are supplied at pulse repetition rate $\leq 10 MHz$. C. Inputs are measured separately one transition per measurement. D. t_{PLH} and t_{PHL} are the same as $t_{PD.}$



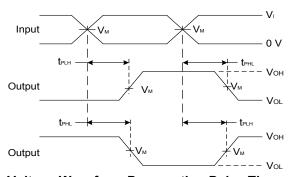
Parameter Measurement Information (continued)



V	Inputs		V	Cı	В
V _{CC}	VI	t _R /t _F	V _M	OL.	R_L
1.8V±0.15V	V _{CC}	≤2ns	V _{CC} /2	30pF	1kΩ
2.5V±0.2V	Vcc	≤2ns	V _{CC} /2	30pF	500Ω
3.3V±0.3V	3V	≤2.5ns	1.5V	50pF	500Ω
5V±0.5V	V _{CC}	≤2.5ns	V _{CC} /2	50pF	500Ω







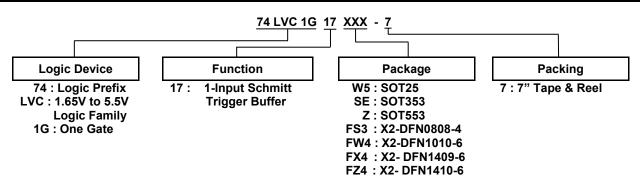
Voltage Waveform Propagation Delay Times Inverting and Non Inverting Outputs

Figure 2. Load Circuit and Voltage Waveforms

- A. Includes test lead and test apparatus capacitance. B. All pulses are supplied at pulse repetition rate $\leq 10 MHz$. C. Inputs are measured separately one transition per measurement. D. t_{PLH} and t_{PHL} are the same as t_{PD} .



Ordering Information (Note 8)



Davidas		Package	7" Tape and Reel	
Device	Device Package Code (Notes		Quantity	Part Number Suffix
74LVC1G17W5-7	W5	SOT25	3,000/Tape & Reel	-7
74LVC1G17SE-7	SE	SOT353	3,000/Tape & Reel	-7
74LVC1G17Z-7	Z	SOT553	4,000/Tape & Reel	-7
74LVC1G17FS3-7	FS3	X2-DFN0808-4	5,000/Tape & Reel	-7
74LVC1G17FW4-7	FW4	X2-DFN1010-6	5,000/Tape & Reel	-7
74LVC1G17FX4-7	FX4	X2-DFN1409-6 (Chip Scale Alternative)	5,000/Tape & Reel	-7
74LVC1G17FZ4-7	FZ4	X2-DFN1410-6	5,000/Tape & Reel	-7

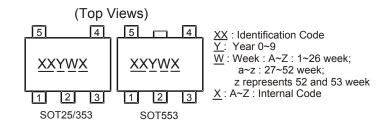
^{8.} For packaging details, go to our website at https://www.diodes.com/design/support/packaging/diodes-packaging/.
9. Pad layout as shown in Diodes Incorporated's package outline PDFs, which can be found on our website at http://www.diodes.com/package-outlines.html.

^{10.} The taping orientation is located on our website at https://www.diodes.com/assets/Packaging-Support-Docs/ap02007.pdf.



Marking Information

(1) SOT25, SOT353 and SOT553



Part Number	Package	Identification Code
74LVC1G17W5-7	SOT25	UR
74LVC1G17SE-7	SOT353	UR
74LVC1G17Z-7	SOT553	UR

(2) DFN Packages

(Top View)



XX : Identification Code
Y: Year 0~9
W: Week : A~Z : 1~26 week;
a~z : 27~52 week;

z represents 52 and 53 week X: A~Z: Internal Code

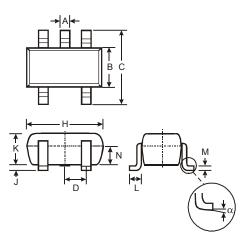
Part Number	Package	Identification Code
74LVC1G17FS3-7	X2-DFN0808-4	WR
74LVC1G17FW4-7	X2-DFN1010-6	UR
74LVC1G17FX4-7	X2-DFN1409-6	MH
74LVC1G17FZ4-7	X2-DFN1410-6	UR



Package Outline Dimensions

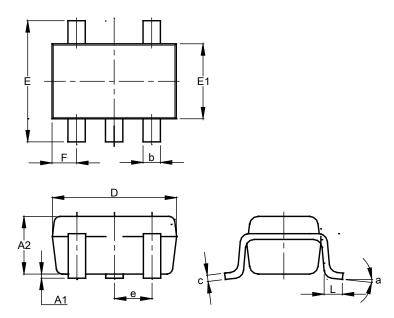
Please see http://www.diodes.com/package-outlines.html for the latest version.

(1) Package Type: SOT25



	SOT25					
Dim	Min	Max	Тур			
Α	0.35	0.50	0.38			
В	1.50	1.70	1.60			
С	2.70	3.00	2.80			
D	1	-	0.95			
Н	2.90	3.10	3.00			
7	0.013	0.10	0.05			
K	1.00	1.30	1.10			
L	0.35	0.55	0.40			
М	0.10	0.20	0.15			
N	0.70	0.80	0.75			
α	0°	8°	-			
All D	imensi	ons in	mm			

(2) Package Type: SOT353



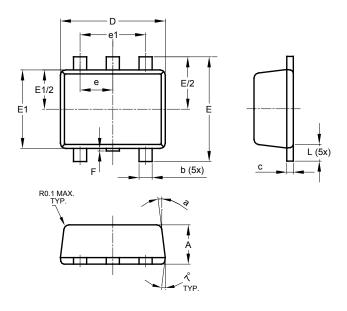
	SOT353						
Dim	Min	Max	Тур				
A1	0.00	0.10	0.05				
A2	0.90	1.00	0.95				
b	0.10	0.30	0.25				
С	0.10	0.22	0.11				
D	1.80	2.20	2.15				
Е	2.00	2.20	2.10				
E1	1.15	1.35	1.30				
е	C	.650 B	SC				
F	0.40	0.45	0.425				
L	0.25	0.40	0.30				
а	0°	8°					
All Dimensions in mm							



Package Outline Dimensions (continued)

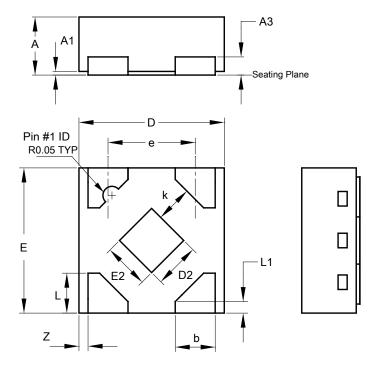
Please see http://www.diodes.com/package-outlines.html for the latest version.

(3) Package Type: SOT553



SOT553					
Dim	Min	Max	Тур		
Α	0.55	0.62	0.60		
b	0.15	0.30	0.20		
С	0.10	0.18	0.15		
D	1.50	1.70	1.60		
Е	1.55	1.70	1.60		
E1	1.10	1.25	1.20		
е	0.	50 BS	\circ		
e1	1.0	00 BS	\circ		
F	0.00	0.10			
L	0.10	0.30	0.20		
а	6°	8°	7°		
AII	All Dimensions in mm				

(4) Package Type: X2-DFN0808-4



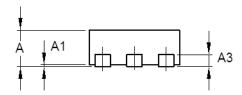
X2-DFN0808-4					
Dim	Min	Max	Тур		
Α	0.25	0.35	0.30		
A1	0	0.04	0.02		
A3	-	-	0.13		
b	0.17	0.27	0.22		
D	0.75	0.85	0.80		
D2	0.15	0.35	0.25		
E	0.75	0.85	0.80		
E2	0.15	0.35	0.25		
е	-	-	0.48		
k	0.20	-	-		
L	0.17	0.27	0.22		
L1	0.02	0.12	0.07		
z	-	-	0.05		
Α	II Dimens	sions in I	mm		

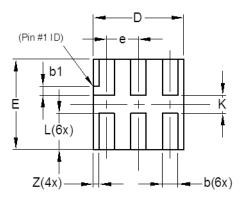


Package Outline Dimensions (continued)

Please see http://www.diodes.com/package-outlines.html for the latest version.

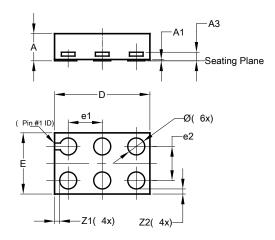
(5) Package Type: X2-DFN1010-6





	X2-DFN1010-6					
Dim	Min	Max	Тур			
Α	_	0.40	0.39			
A1	0.00	0.05	0.02			
A3			0.13			
b	0.14	0.20	0.17			
b1	0.05	0.15	0.10			
D	0.95	1.05	1.00			
Е	0.95	1.05	1.00			
е	_	_	0.35			
L	0.35	0.45	0.40			
K	0.15	_	_			
Z	_	_	0.065			
Α	II Dimensi	ions in mi	n			

(6) Package Type: X2-DFN1409-6



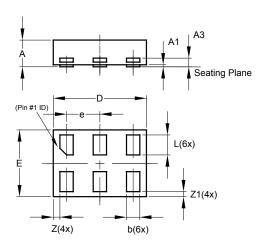
	X2-DFN1409-6					
Dim	Min	Max	Тур			
Α	-	0.40	0.39			
A1	0	0.05	0.02			
A3	-	1	0.13			
Ø	0.20	0.30	0.25			
D	1.35	1.45	1.40			
Е	0.85	0.95	0.90			
e1	-	-	0.50			
e2	-	-	0.50			
Z 1	-	1	0.075			
Z2	-	-	0.075			
All [All Dimensions in mm					



Package Outline Dimensions (continued)

Please see http://www.diodes.com/package-outlines.html for the latest version.

(7) Package Type: X2-DFN1410-6



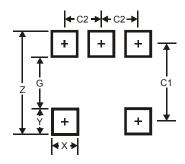
	X2-DFN1410-6					
Dim	Min	Max	Тур			
Α		0.40	0.39			
A1	0.00	0.05	0.02			
A3			0.13			
b	0.15	0.25	0.20			
D	1.35	1.45	1.40			
Е	0.95	1.05	1.00			
е		_	0.50			
L	0.25	0.35	0.30			
Z			0.10			
Z 1	0.045	0.105	0.075			
All [Dimensi	ions in i	mm			



Suggested Pad Layout

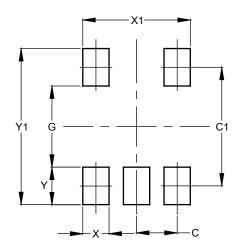
Please see http://www.diodes.com/package-outlines.html for the latest version.

(1) Package Type: SOT25



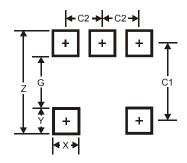
Dimensions	Value
Z	3.20
G	1.60
Х	0.55
Υ	0.80
C1	2.40
C2	0.95

(2) Package Type: SOT353



Dimensions	Value (in mm)
С	0.650
C1	1.900
G	1.300
X	0.420
X1	1.720
Y	0.600
Y1	2.500

(3) Package Type: SOT553



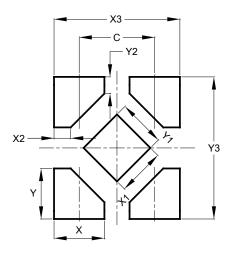
Dimensions	Value (in mm)
Z	2.2
G	1.2
Х	0.375
Υ	0.5
C1	1.7
C2	0.5



Suggested Pad Layout (continued)

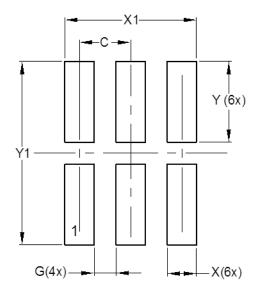
Please see http://www.diodes.com/package-outlines.html for the latest version.

(4) Package Type: X2-DFN0808-4



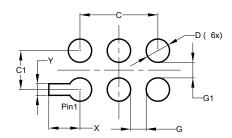
Dimensions	Value
С	0.480
Х	0.320
X1	0.300
X2	0.106
Х3	0.800
Υ	0.320
Y1	0.300
Y2	0.106
Y3	0.900

(5) Package Type: X2-DFN1010-6



Dimensions	Value (in mm)
C	0.350
G	0.150
X	0.200
X1	0.900
Y	0.550
Y1	1.250

(6) Package Type: X2-DFN1409-6



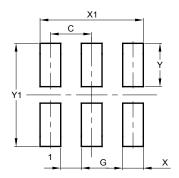
Dimensions	Value (in mm)
С	1.000
C1	0.500
D	0.300
G	0.200
G1	0.200
Х	0.400
Y	0.150



Suggested Pad Layout (continued)

Please see http://www.diodes.com/package-outlines.html for the latest version.

(7) Package Type: X2-DFN1410-6



Dimensions	Value (in mm)
C	0.500
G	0.250
Х	0.250
X1	1.250
Y	0.525
Y1	1.250

Mechanical Data

SOT25

- Moisture Sensitivity: Level 1 per J-STD-020
- Terminals: Finish Mate Tin Plated Leads, Solderable per MIL-STD-202, Method 208 @3
- Weight: 0.016 grams (Approximate)

SOT353

- Moisture Sensitivity: Level 1 per J-STD-020
- Terminals: Finish Mate Tin Plated Leads, Solderable per MIL-STD-202, Method 208 <a>®
- Weight: 0.006 grams (Approximate)

SOT553

- Moisture Sensitivity: Level 1 per J-STD-020
- Terminals: Finish Mate Tin Plated Leads, Solderable per MIL-STD-202, Method 208 @3
- Weight: 0.003 grams (Approximate)

X2-DFN0808-4

- Moisture Sensitivity: Level 1 per J-STD-020
- Terminals: Finish NiPdAu Nickel Palladium Gold, Solderable per MIL-STD-202, Method 208 (4)
- Weight: 0.001 grams (Approximate)

X2-DFN1010-6

- Moisture Sensitivity: Level 1 per J-STD-020
- Terminals: Finish NiPdAu Nickel Palladium Gold, Solderable per MIL-STD-202, Method 208 @
- Weight: 0.001 grams (Approximate)

X2-DFN1409-6

- Moisture Sensitivity: Level 1 per J-STD-020
- Terminals: Finish NiPdAu Nickel Palladium Gold, Solderable per MIL-STD-202, Method 208 @
- Weight: 0.002 grams (Approximate)

X2-DFN1410-6

- Moisture Sensitivity: Level 1 per J-STD-020
- Terminals: Finish NiPdAu Nickel Palladium Gold, Solderable per MIL-STD-202, Method 208 @4
- Weight: 0.002 grams (Approximate)



IMPORTANT NOTICE

- 1. DIODES INCORPORATED AND ITS SUBSIDIARIES ("DIODES") MAKE NO WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, WITH REGARDS TO ANY INFORMATION CONTAINED IN THIS DOCUMENT, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR NON-INFRINGEMENT OF THIRD PARTY INTELLECTUAL PROPERTY RIGHTS (AND THEIR EQUIVALENTS UNDER THE LAWS OF ANY JURISDICTION).
- 2. The Information contained herein is for informational purpose only and is provided only to illustrate the operation of Diodes products described herein and application examples. Diodes does not assume any liability arising out of the application or use of this document or any product described herein. This document is intended for skilled and technically trained engineering customers and users who design with Diodes products. Diodes products may be used to facilitate safety-related applications; however, in all instances customers and users are responsible for (a) selecting the appropriate Diodes products for their applications, (b) evaluating the suitability of the Diodes products for their intended applications, (c) ensuring their applications, which incorporate Diodes products, comply the applicable legal and regulatory requirements as well as safety and functional-safety related standards, and (d) ensuring they design with appropriate safeguards (including testing, validation, quality control techniques, redundancy, malfunction prevention, and appropriate treatment for aging degradation) to minimize the risks associated with their applications.
- 3. Diodes assumes no liability for any application-related information, support, assistance or feedback that may be provided by Diodes from time to time. Any customer or user of this document or products described herein will assume all risks and liabilities associated with such use, and will hold Diodes and all companies whose products are represented herein or on Diodes' websites, harmless against all damages and liabilities.
- 4. Products described herein may be covered by one or more United States, international or foreign patents and pending patent applications. Product names and markings noted herein may also be covered by one or more United States, international or foreign trademarks and trademark applications. Diodes does not convey any license under any of its intellectual property rights or the rights of any third parties (including third parties whose products and services may be described in this document or on Diodes' website) under this document.
- 5. Diodes products are provided subject to Diodes' Standard Terms and Conditions of Sale (https://www.diodes.com/about/company/terms-and-conditions/terms-and-conditions-of-sales/) or other applicable terms. This document does not alter or expand the applicable warranties provided by Diodes. Diodes does not warrant or accept any liability whatsoever in respect of any products purchased through unauthorized sales channel.
- 6. Diodes products and technology may not be used for or incorporated into any products or systems whose manufacture, use or sale is prohibited under any applicable laws and regulations. Should customers or users use Diodes products in contravention of any applicable laws or regulations, or for any unintended or unauthorized application, customers and users will (a) be solely responsible for any damages, losses or penalties arising in connection therewith or as a result thereof, and (b) indemnify and hold Diodes and its representatives and agents harmless against any and all claims, damages, expenses, and attorney fees arising out of, directly or indirectly, any claim relating to any noncompliance with the applicable laws and regulations, as well as any unintended or unauthorized application.
- 7. While efforts have been made to ensure the information contained in this document is accurate, complete and current, it may contain technical inaccuracies, omissions and typographical errors. Diodes does not warrant that information contained in this document is error-free and Diodes is under no obligation to update or otherwise correct this information. Notwithstanding the foregoing, Diodes reserves the right to make modifications, enhancements, improvements, corrections or other changes without further notice to this document and any product described herein. This document is written in English but may be translated into multiple languages for reference. Only the English version of this document is the final and determinative format released by Diodes.
- 8. Any unauthorized copying, modification, distribution, transmission, display or other use of this document (or any portion hereof) is prohibited. Diodes assumes no responsibility for any losses incurred by the customers or users or any third parties arising from any such unauthorized use.

Copyright © 2021 Diodes Incorporated

www.diodes.com