



D26V0H1U2LP20

26V UNI-DIRECTIONAL TVS DIODE

Product Summary

V _{BR (min)}	I _{PP (max)}	I _{R (max)}
28V	9.5A	100nA

Description

This new generation TVS is designed to protect sensitive electronics from the damage due to ESD. The combination of small size and high ESD surge capability makes it ideal for use in portable applications such as cellular phones, digital cameras, and MP3 players.

Applications

- Cellular Handsets
- Portable Electronics
- Computers and Peripheral

Features

- Low Profile Package (0.605mm max) and Ultra-small PCB Footprint Area (2.05 * 2.05mm max) Suitable for Compact Portable Electronics
- Provides ESD Protection per IEC 61000-4-2 Standard:
 Air ±30kV. Contact ±30kV
- 1 Channel of ESD Protection
- Low Channel Input Capacitance
- Totally Lead-Free & Fully RoHS Compliant (Notes 1 & 2)
- Halogen and Antimony Free. "Green" Device (Note 3)

Mechanical Data

- Case: U-DFN2020-2
- Case Material: Molded Plastic, "Green" Molding Compound. UL Flammability Classification Rating 94V-0
- Moisture Sensitivity: Level 1 per J-STD-020
- Terminals: NiPdAu over Copper leadframe. Solderable per MIL-STD-202, Method 208
- Weight: 0.0065 grams (approximate)



Device Schematic

Ordering Information (Note 4)

Ī	Product	Compliance	Marking	Reel Size (inches)	Tape Width (mm)	Quantity per Reel
	D26V0H1U2LP20-7	Standard	QV4	7	8	3,000/Tape & Reel

Notes:

- 1. No purposely added lead. Fully EU Directive 2002/95/EC (RoHS) & 2011/65/EU (RoHS 2) compliant.
- 2. See http://www.diodes.com/quality/lead_free.html for more information about Diodes Incorporated's definitions of Halogen- and Antimony-free, "Green" and Lead-free.
- 3. Halogen- and Antimony-free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.
- 4. For packaging details, go to our website at http://www.diodes.com/products/packages.html.

Marking Information



QV4 = Product Type Marking Code YM = Date Code Marking Y = Year (ex: B = 2014) M = Month (ex: 9 = September)

Date Code Key

Year	201	3	2014		2015	20	16	2017		2018		2019
Code	Α		В		С	I)	Е		F		G
Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Code	1	2	3	4	5	6	7	8	9	0	N	D



Maximum Ratings ($@T_A = +25^{\circ}C$, unless otherwise specified.)

Characteristic	Symbol	Value	Unit	Conditions
Peak Pulse Power Dissipation	P _{PP}	300	W	10/1000µs, Per Figure 1
Peak Pulse Current	IPP	9.5	Α	10/1000µs, Per Figure 1
ESD Protection – Contact Discharge	V _{ESD_Contact}	±30	kV	IEC 61000-4-2 Standard
ESD Protection – Air Discharge	V_{ESD_Air}	±30	kV	IEC 61000-4-2 Standard

Thermal Characteristics

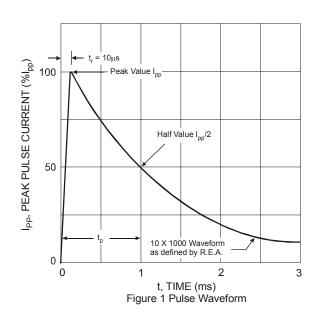
Characteristic	Symbol	Value	Unit
Package Power Dissipation (Note 5)	P_{D}	500	mW
Thermal Resistance, Junction to Ambient (Note 5)	$R_{ heta JA}$	250	°C/W
Operating and Storage Temperature Range	T _J , T _{STG}	-65 to +150	°C

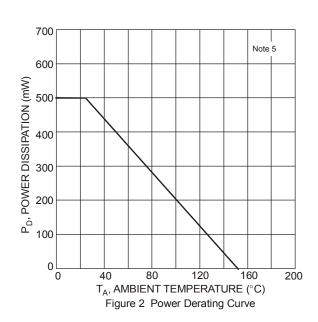
Electrical Characteristics (@T_A = +25°C, unless otherwise specified.)

Characteristic	Symbol	Min	Тур	Max	Unit	Test Conditions
Reverse Standoff Voltage	V _{RWM}	_	_	26	V	_
Channel Leakage Current (Note 6)	I _{RM}	_	_	100	nA	V _{RWM} = 26V
Forward Voltage	V _F	0.6	0.8	1.2	V	I _R = 10mA
Clamping Voltage	V _{CL}	_	_	40	V	$I_{PP} = 9.5A, t_p = 10/1000\mu S$
Breakdown Voltage	V _{BR}	28	_	31.9	V	I _R = 1mA
Channel Input Capacitance	C _T	_	630	_	pF	V _R = 0V, f = 1MHz

Notes:

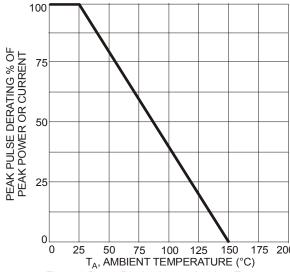
^{6.} Short duration pulse test used to minimize self-heating effect.

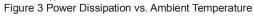


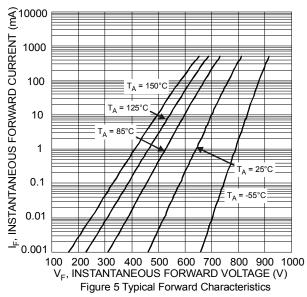


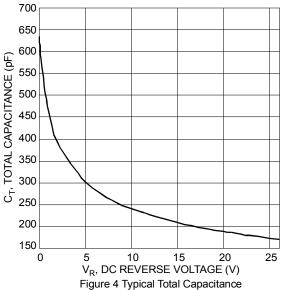
^{5.} Device mounted on FR-4 PCB pad layout (2oz copper) as shown on Diodes, Inc. suggested pad layout AP02001, which can be found on our website at http://www.diodes.com.

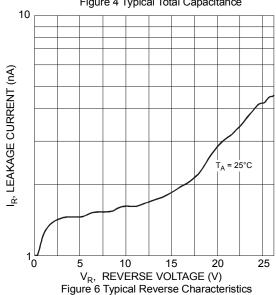






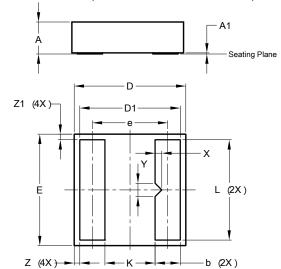






Package Outline Dimensions

Please see AP02002 at http://www.diodes.com/datasheets/ap02002.pdf for latest version.

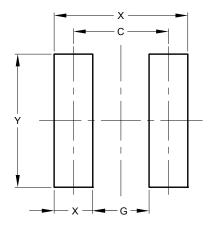


U-DFN2020-2						
Dim	Min	Max	Тур			
Α	0.545	0.605	0.575			
A1	0	0.05	0.02			
b	0.35	0.55	0.45			
D	1.90	2.10	2.00			
D1	1.70	1.90	1.80			
Е	1.90	2.10	2.00			
e	1.35 BSC					
K	0.80	1.00	0.90			
L	1.70	1.90	1.80			
Х	-	-	0.120			
Υ	-	-	0.240			
Z	0.10 BSC					
Z 1	0.10 BSC					
Al	All Dimensions in mm					



Suggested Pad Layout

Please see AP02001 at http://www.diodes.com/datasheets/ap02001.pdf for the latest version.



Dimensions	Value (in mm)
С	1.350
G	0.800
Х	0.550
X1	1.900
Υ	1.900

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