Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!

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QUAD SURFACE MOUNT TVS ARRAY

Features

- Quad TVS in Common Anode Configuration
- Ultra-Small Surface Mount Package
- Ideal For Transient Suppression and ESD Protection
- **Totally Lead-Free & Fully RoHS Compliant (Notes 1 & 2)**
- **Halogen and Antimony Free. "Green" Device (Note 3)**
- **Qualified to AEC-Q101 Standards for High Reliability**

ESD Capability

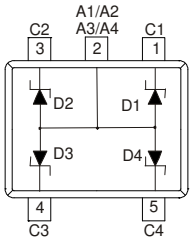
- **IEC 61000-4-2 Contact Method ±8kV**
- **IEC 61000-4-2 Air Discharge Method ±15kV**

Mechanical Data

- Case: SOT553
- Case Material: Molded Plastic, "Green" Molding Compound. UL Flammability Classification Rating 94V-0
- Moisture Sensitivity: Level 1 per J-STD-020
- Terminal Finish: Matte Tin, Annealed Over Copper Leadframe. Solderable per MIL-STD-202, Method 208 e3
- Weight: 0.002 grams (approx.)

SOT553

Top View



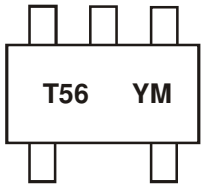
Device Schematic

Ordering Information (Note 4)

Part Number	Case	Packaging
DZQA5V6AXV5-7	SOT553	3000/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 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.

Marking Information



T56 = Product type marking code
YM = Date Code Marking
Y = Year (ex: W = 2009)
M = Month (ex: 9 = September)

Date Code Key

Year	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Code	W	X	Y	Z	A	B	C	D	E	F

Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Code	1	2	3	4	5	6	7	8	9	O	N	D

Maximum Ratings (@T_A = +25°C, unless otherwise specified.)

Characteristic	Symbol	Value	Unit
Forward Voltage @ I_F = 10mA	V_F	0.9	V

Thermal Characteristics

Characteristic	Symbol	Value	Unit
Power Dissipation (Notes 5 & 6)	P_D	380	mW
Peak Power Dissipation, 8x20μS Waveform (Note 7)	P_{pk}	20	W
Thermal Resistance, Junction-to-Ambient (Note 5)	$R_{\theta JA}$	327	°C/W
Operating and Storage Temperature Range	T_J, T_{STG}	-55 to +150	°C

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

Type Number	Marking Code	Breakdown Voltage (Note 8)			Leakage Current (Note 8)		Max. Clamping Voltage (Note 7)		Capacitance @ 0V Bias (pF) (Note 9)		Capacitance @ 3V Bias (pF) (Note 9)	
		V_{BR} @ I_T = 1mA			I_{RM} @ V_{RM}		V_C @ I_{PP}		C_T		C_T	
		Min (V)	Nom (V)	Max (V)	Max(μA)	(V)	V_C(V)	I_{PP}(A)	Typ	Max	Typ	Max
DZQA5V6AXV5	T56	5.3	5.6	5.9	1	3.0	13	1.6	18.7	20	11.4	12.3

Notes:
5. Device mounted on FR-4 PCB, 1 inch x 0.85 inch x 0.062 inch; pad layout as shown on Diodes Inc. Suggested Pad Layout Document AP02001, which can be found on our website at http://www.diodes.com.
6. Only 1 diode under power. For all 4 diodes under power, P_D will be 25% of the listed value.
7. Non-repetitive current pulse per Figure 2 and derate above T_A = +25°C per Figure 1.
8. Short duration pulse test used to minimize self-heating effect.
9. Per element, f = 1MHZ, T_A = +25°C

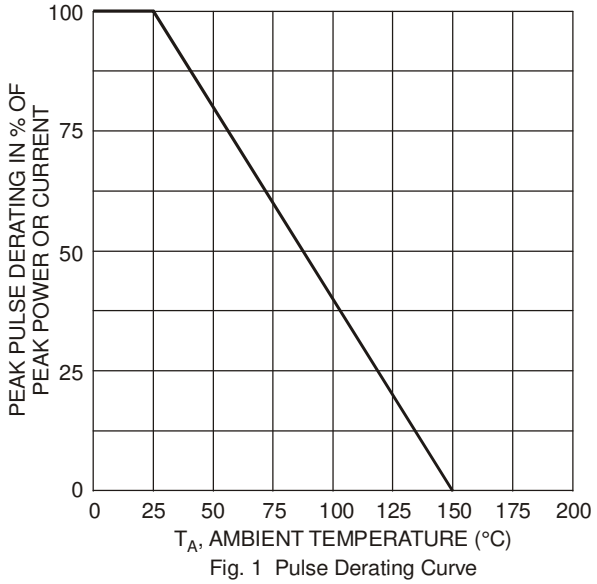


Fig. 1 Pulse Derating Curve

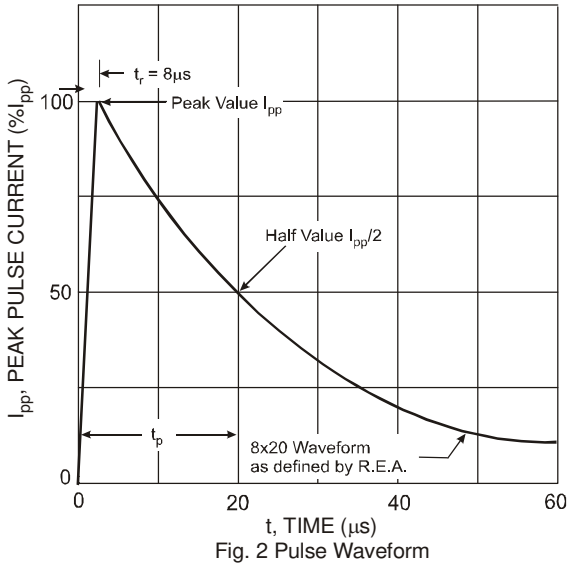


Fig. 2 Pulse Waveform

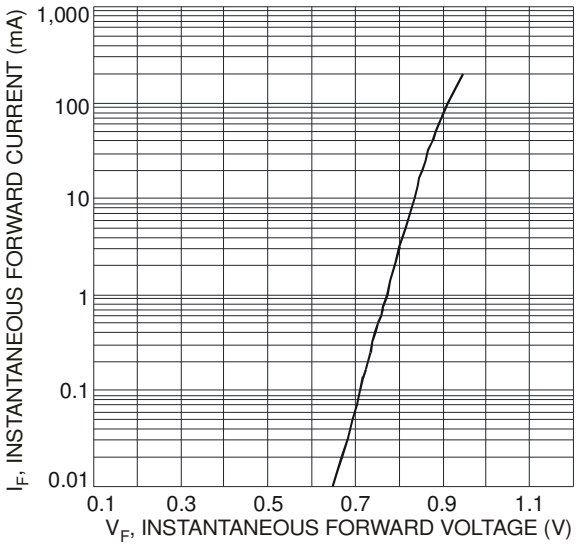


Fig. 3 Typical Forward Characteristics

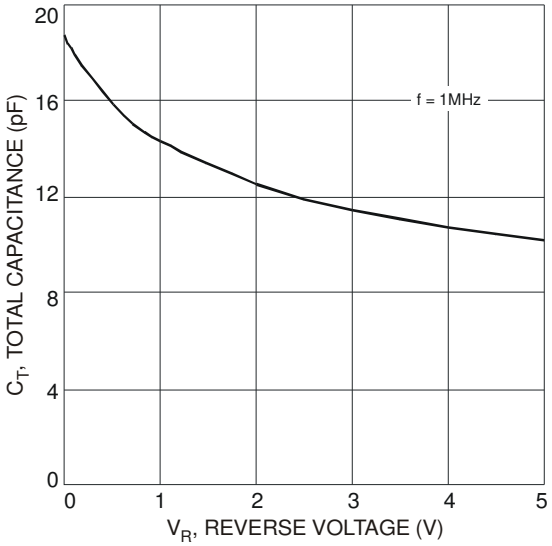
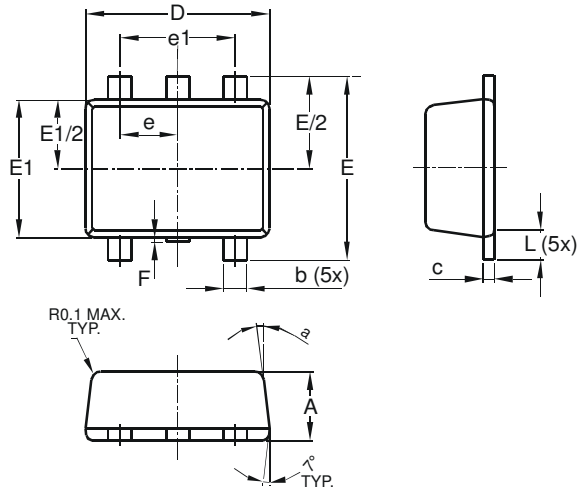


Fig. 4 Typical Total Capacitance vs. Reverse Voltage (Per Element)

Package Outline Dimensions

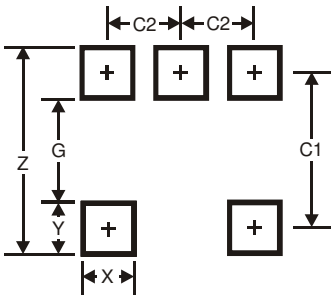
Please see AP02002 at http://www.diodes.com/datasheets/ap02002.pdf for latest version.



SOT553			
Dim	**Min**	**Max**	**Typ**
A	0.55	0.62	0.60
b	0.15	0.30	0.20
c	0.10	0.18	0.15
D	1.50	1.70	1.60
E	1.55	1.70	1.60
E1	1.10	1.25	1.20
e	0.50 BSC		
e1	1.00 BSC		
F	0.00	0.10	—
L	0.10	0.30	0.20
a	6°	8°	7°
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)
Z	2.2
G	1.2
X	0.375
Y	0.5
C1	1.7
C2	0.5