

Ordering Information

Part Number	Ambient Temperature Range	Package	Environmental
AOZ8851DI-05	-40 °C to +85 °C	DFN 0.6 x 0.3	Green Product RoHS Compliant



AOS Green Products use reduced levels of Halogens, and are also RoHS compliant.

Please visit www.aosmd.com/media/AOSGreenPolicy.pdf for additional information.

Absolute Maximum Ratings

Exceeding the Absolute Maximum Ratings may damage the device.

Parameter	Rating
VP – VN	5 V
Peak Pulse Current (I _{PP}), t _p = 8/20μs (IEC61000-4-5)	2 A
Peak Pulse Power, t _p = 8/20μs	40 W
Storage Temperature (T _S)	-65 °C to +150 °C
ESD Rating per IEC61000-4-2, Contact ⁽¹⁾	±25 kV
ESD Rating per IEC61000-4-2, Air ⁽¹⁾	±30 kV
ESD Rating per Human Body Model ⁽²⁾	±25 kV

Notes:

- IEC 61000-4-2 discharge with C_{Discharge} = 150 pF, R_{Discharge} = 330 Ω.
- Human Body Discharge per MIL-STD-883, Method 3015 C_{Discharge} = 100 pF, R_{Discharge} = 1.5 kΩ.

Maximum Operating Conditions

The device is not guaranteed to operate beyond the Maximum Operating Conditions.

Parameter	Rating
Junction Temperature (T _J)	-40 °C to +125 °C

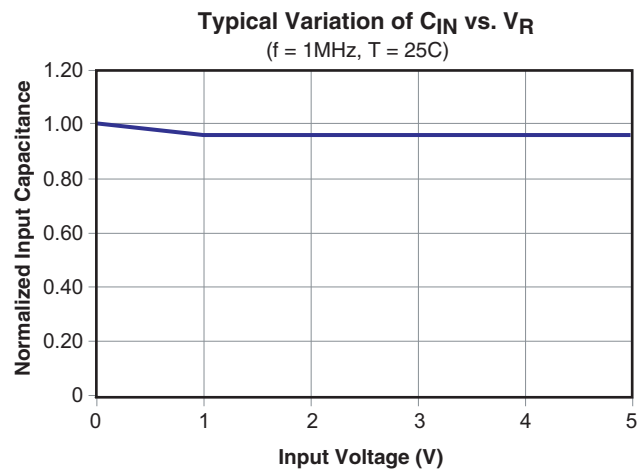
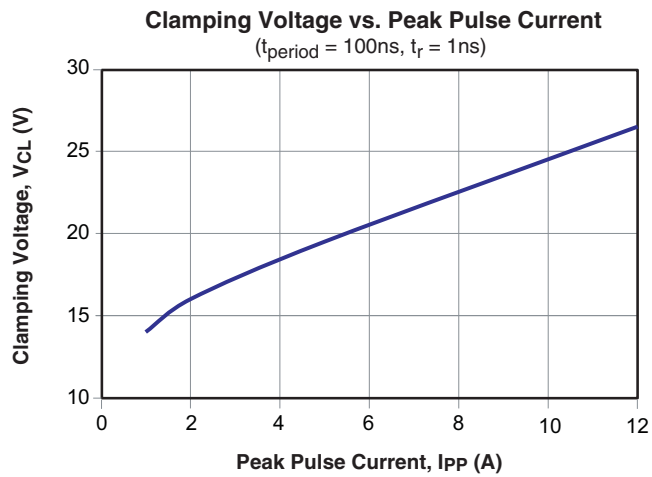
Electrical Characteristics

$T_A = 25^\circ\text{C}$ unless otherwise specified.

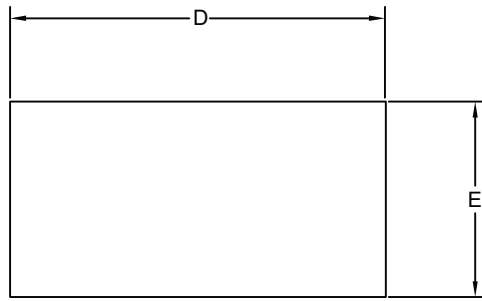
Symbol	Parameter	Diagram
I_{PP}	Maximum Reverse Peak Pulse Current	
V_{CL}	Clamping Voltage @ I_{PP}	
V_{RWM}	Working Peak Reverse Voltage	
I_R	Maximum Reverse Leakage Current	
V_{BR}	Breakdown Voltage	
P_{PK}	Peak Power Dissipation	
C_J	Capacitance @ $V_R = 0$ and $f = 1\text{ MHz}$	

Device	Device Marking	V_{RWM} (V) Max.	V_{BR} (V) Min.	I_R (μA) Max.	V_{CL} Max.			C_J (pF) Typ.
					$I_{PP} = 1\text{ A}$	$I_{PP} = 2\text{ A}$	$I_{PP} = 5\text{ A}$	
AOZ8851DI-05	A	5.0	6.0	0.1	14.00	16.00	19.50	0.30

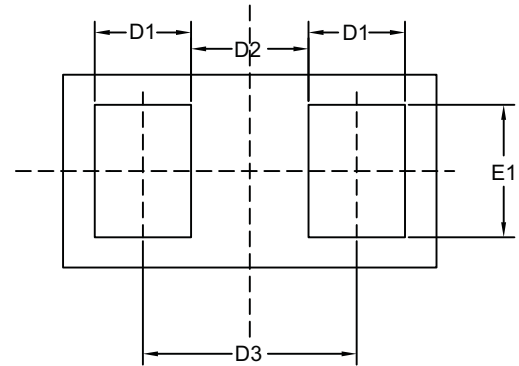
Typical Performance Characteristics



Package Dimensions, DFN 0.6x0.3, 2L EP2 S



TOP VIEW

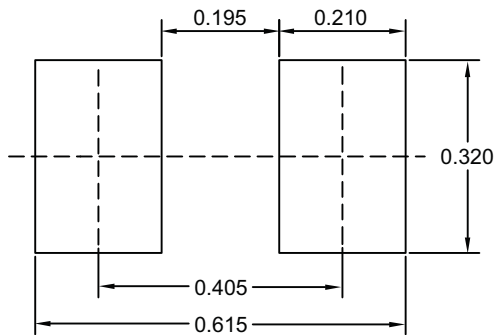


BOTTOM VIEW



SIDE VIEW

RECOMMENDED LAND PATTERN



Unit: mm

Dimensions in millimeters

Symbols	Min.	Nom.	Max.
A	0.27	0.30	0.33
D	0.57	0.62	0.67
D1	0.11	0.16	0.21
D2	0.145	0.195	0.245
D3	0.305	0.355	0.405
E	0.27	0.32	0.37
E1	0.17	0.22	0.27

Dimensions in inches

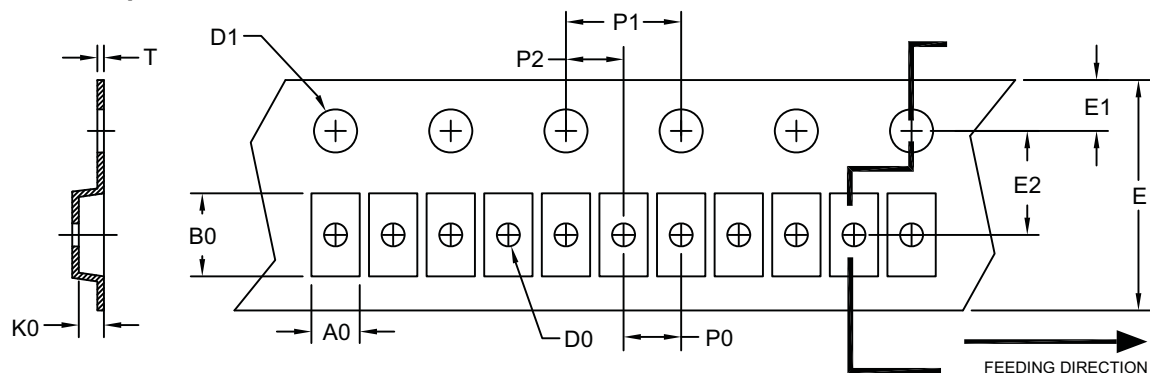
Symbols	Min.	Nom.	Max.
A	0.0106	0.0118	0.0130
D	0.0224	0.0244	0.0264
D1	0.0043	0.0063	0.0083
D2	0.0057	0.0077	0.0097
D3	0.0120	0.0140	0.0167
E	0.0106	0.0126	0.0146
E1	0.0067	0.0087	0.0107

Notes:

1. All dimensions are in millimeters.
2. Dimensions are inclusive of plating.
3. Package body sizes exclude mold flash and gate burrs. Mold flash at the non-lead sides should be less than 6mil each.
4. Controlling dimension is millimeter. Converted inch dimensions are not necessarily exact.
5. Paddle exposed on bottom.

Tape and Reel Dimensions, DFN 0.6x0.3, 2L EP2 S

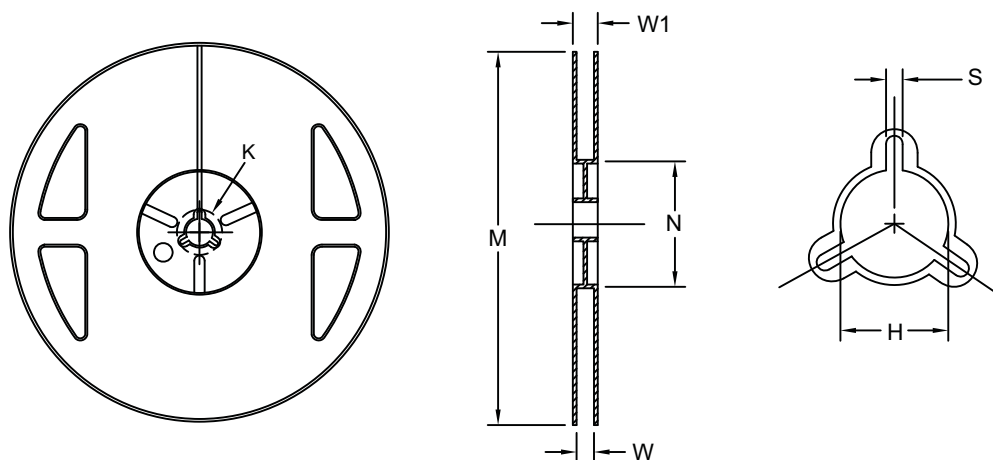
Carrier Tape



UNIT: mm

Package	A0	B0	K0	D0	D1	E	E1	E2	P0	P1	P2	T
DFN 0.6x0.3 (8 mm)	0.42 ±0.05	0.75 ±0.05	0.57 ±0.15	0.20 ±0.05	1.50 +0.1/-0.0	8.00 ±0.10	1.75 ±0.10	3.50 ±0.03	2.00 ±0.05	4.00 ±0.05	2.00 ±0.05	0.20 ±0.05

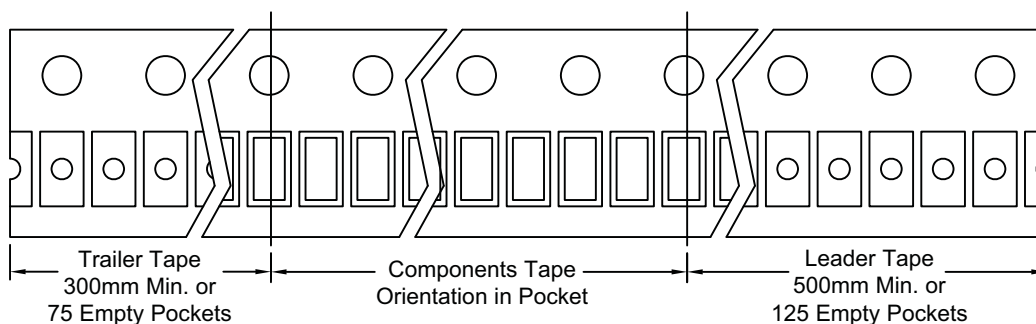
Reel



UNIT: mm

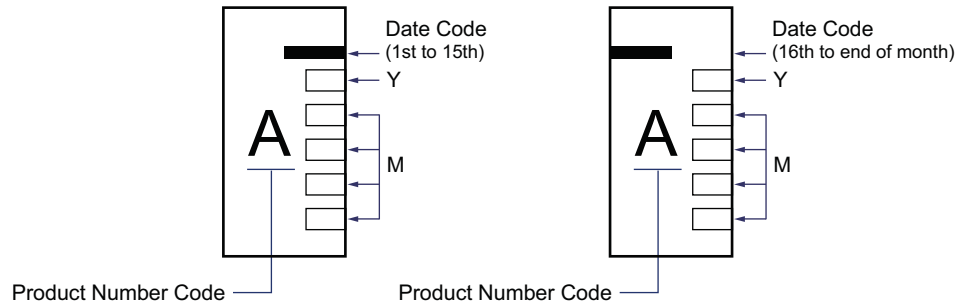
Tape Size	Reel Size	M	N	W	W1	H	K	S
8mm	ø180	ø180.00 +0.1/-3.0	ø60.00 +1.0/-0.0	9.00 ±0.30	11.40 ±1.00	ø13.00 ±0.20	ø21.00 ±0.50	2.0 ±0.50

Leader/Trailer & Orientation



Part Marking

AOZ8851DI-05 (DFN0.6x0.3)



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2. A critical component in any component of a life support, device, or system whose failure to perform can be reasonably expected to cause the failure of the life support device or system, or to affect its safety or effectiveness.