



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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Features

- Fast Switching Speed
- Ultra-Small Surface Mount Package
- **Lead Free By Design/RoHS Compliant (Note 3)**
- **"Green" Device (Note 4)**
- **Qualified to AEC-Q101 Standards for High Reliability**

Data Line Transient Protection

In accordance with (Note 1):

- IEC 61000-4-2 Contact Method: $\pm 15\text{kV}$
- IEC 61000-4-2 Air Discharge Method: $\pm 25\text{kV}$

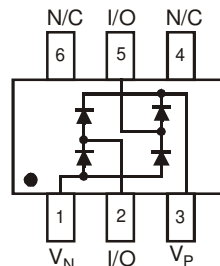
Mechanical Data

- Case: SOT-363
- Case Material: Molded Plastic, "Green" Molding Compound. UL Flammability Classification Rating 94V-0 (Note 3)
- Moisture Sensitivity: Level 1 per J-STD-020D
- Terminals: Finish — Matte Tin annealed over Alloy 42 Leadframe. Solderable per MIL-STD-202, Method 208
- Ordering Information: See Page 3
- Marking Information: See Page 3
- Weight: 0.006 grams (approximate)



TOP VIEW

SOT-363



Device Schematic

Maximum Ratings @T_A = 25°C unless otherwise specified

Characteristic	Symbol	Value	Unit
Peak Repetitive Reverse Voltage	V _{RRM}	85	V
Working Peak Reverse Voltage	V _{RWM}		
DC Blocking Voltage	V _R		
RMS Reverse Voltage	V _{R(RMS)}	60	V
Forward Current (Single Diode)	I _{FM}	200	mA
Peak Forward Surge Current 8.3ms Single half Sine-Wave Superimposed on Rated Load	I _{FM(surge)}	3.5	A
Average Rectified Forward Current (Note 1)	I _{F(AV)}	1	A
Repetitive Peak Forward Current	I _{FRM}	450	mA
Non-Repetitive Peak Forward Surge Current	I _{FSM}	4.0	A
@ t = 1.0μs		1.0	
@ t = 1.0ms		0.5	

Thermal Characteristics

Characteristic	Symbol	Value	Unit
Power Dissipation (Note 2)	P _D	200	mW
Thermal Resistance Junction to Ambient Air (Note 2)	R _{θJA}	625	°C/W
Operating and Storage Temperature Range	T _J , T _{STG}	-65 to +150	°C

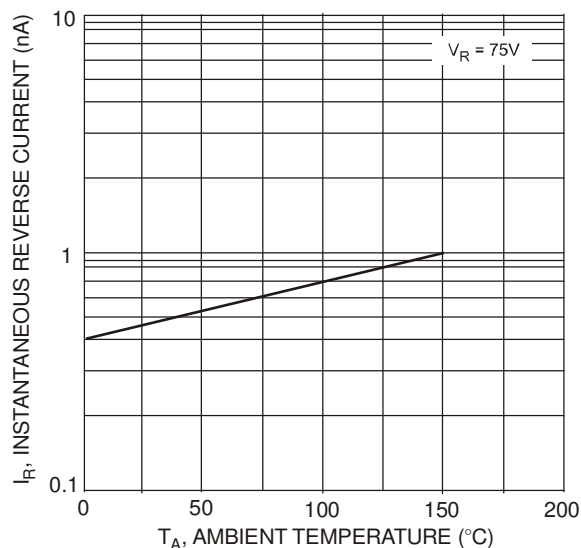
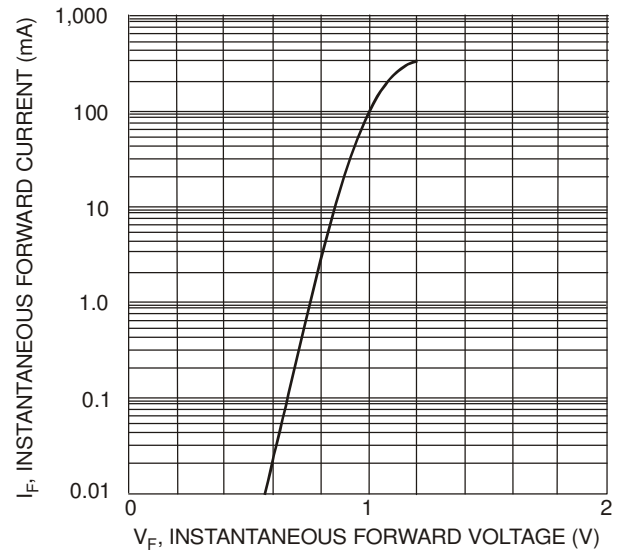
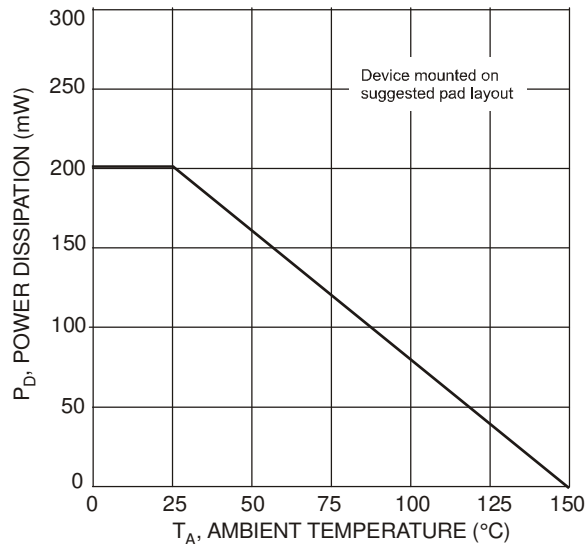
Notes:

1. Tested with V_{CC} pins connected to GND pin.
2. 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/datasheets/ap02001.pdf>.
3. No purposefully added lead.
4. Diodes Inc.'s "Green" policy can be found on our website at http://www.diodes.com/products/lead_free/index.php.

Electrical Characteristics @T_A = 25°C unless otherwise specified

Characteristic	Symbol	Min	Typ	Max	Unit	Test Condition
Reverse Breakdown Voltage (Note 5)	V _{(BR)R}	85	—	—	V	I _R = 100μA
Forward Voltage	V _F	—	—	0.80 0.90 1.0 1.25	V	I _F = 1.0mA I _F = 10mA I _F = 50mA I _F = 150mA
Leakage Current (Note 5)	I _R	—	—	2.5 30 50	μA	V _R = 70V V _R = 25V, T _J = 150°C V _R = 70V, T _J = 150°C
Total Capacitance (per element)	C _T	—	2	—	pF	V _R = 0, f = 1.0MHz
Capacitance Between Two Data Lines (DL ₁ & DL ₂ , DL ₁ & DL ₃)	C _{LL}	—	1.6	2.0	pF	V _R = 0, f = 1.0MHz
Capacitance Between Data Line and Ground	C _{LG}	—	2.3	3.0	pF	V _R = 0, f = 1.0MHz
Reverse Recovery Time	t _{rr}	—	—	3.0	μs	I _F = I _R = 10mA, I _{rr} = 0.1 x I _R , R _L = 100Ω

Notes: 5. Short duration pulse test used to minimize self-heating effect.

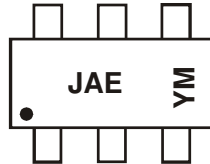


Ordering Information (Note 6)

Part Number	Case	Packaging
DLPA004-7	SOT-363	3000/Tape & Reel

Notes: 6. For packaging details, go to our website at <http://www.diodes.com/datasheets/ap02007.pdf>.

Marking Information



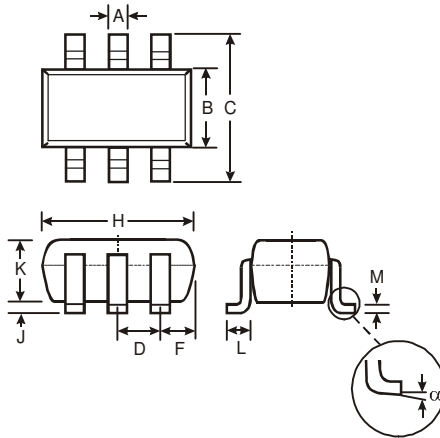
JAE = Product Type Marking Code
 YM = Date Code Marking
 Y = Year (ex: V = 2008)
 M = Month (ex: 9 = September)

Date Code Key

Year	2008	2009	2010	2011	2012	2013	2014	2015
Code	V	W	X	Y	Z	A	B	C

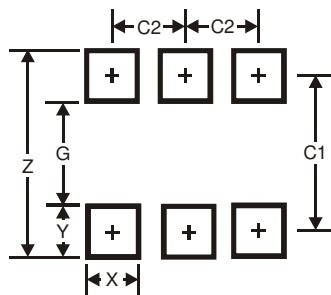
Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Code	1	2	3	4	5	6	7	8	9	O	N	D

Package Outline Dimensions



SOT-363		
Dim	Min	Max
A	0.10	0.30
B	1.15	1.35
C	2.00	2.20
D	0.65 Typ	
F	0.40	0.45
H	1.80	2.20
J	0	0.10
K	0.90	1.00
L	0.25	0.40
M	0.10	0.22
α	0°	8°
All Dimensions in mm		

Suggested Pad Layout



Dimensions	Value (in mm)
Z	2.5
G	1.3
X	0.42
Y	0.6
C1	1.9
C2	0.65

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