



New Product Announcement

DFN0603

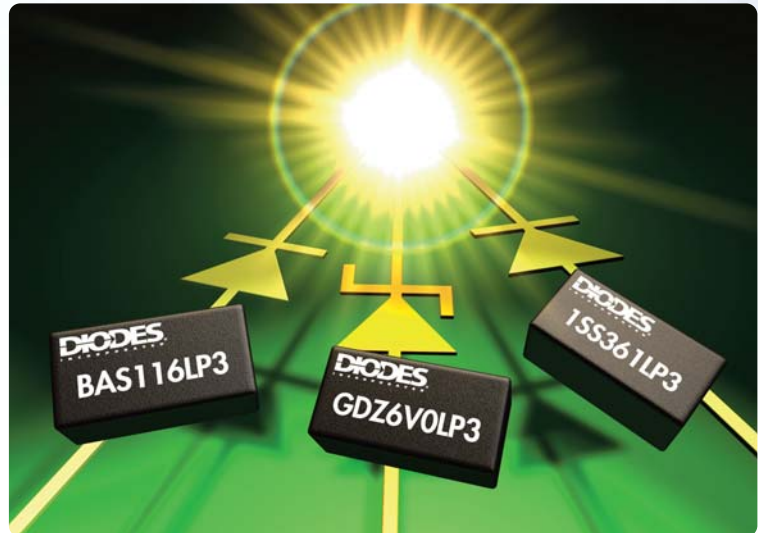
X3-DFN0603-2: Ultra-Small, Ultra-Low Profile Leadless Surface Mount Package

Diodes Incorporated has announced the introduction of an ultra-small, ultra-low profile leadless surface mount package, with size of 0.6mm x 0.3mm x 0.3mm, currently available in Zener and Switching Diode products.

This ultra-low profile, small footprint, compact package saves PCB space & enables the design of light weight portable electronic devices such as mobile handsets and tablet PCs, where size and rigorous performance characteristics are critical.

The GDZ Zener Diode series offers a Zener voltage range between 5.1V and 8.2V; suitable for voltage referencing, voltage regulation, over-voltage protection and voltage limiting applications.

The 1SS361LP3 is a fast-switching low leakage diode and the BAS116LP3 features ultra-low leakage for longer battery life in battery powered portable applications.



The Diodes' Advantage

- **Ultra-Small Leadless Surface Mount Package (0.6 x 0.3mm)**
Consumes 70% less PCB area than DFN1006-2
- **Ultra-Low Profile Package (0.3mm)**
25% lower profile than X2-DFN1006-2 package
40% lower profile than X1-DFN1006-2 package
- **Thermally-efficient DFN package with 250mW power dissipation**
- **The GDZ Zener Diode series offers low leakage current with nominal voltages ranging from 5.1 ~ 8.2 Volts with a V_Z tolerance of $\pm 5\%$.**
- **The 1SS361LP3 features a fast switching speed ($t_{RR} \leq 4ns$) while the BAS116LP3 features ultra-low leakage current ($I_R \leq 10nA$), both with low capacitance, $C_T \leq 3pF$.**
- **Lead-Free By Design / RoHS-Compliant**
- **Halogen free "Green" Device (See www.diodes.com for further details)**

Target Markets

- LCD Display
- Portable Electronics
- Mobile Communication, Consumer products
- Notebooks and Desktop Computers, Peripherals



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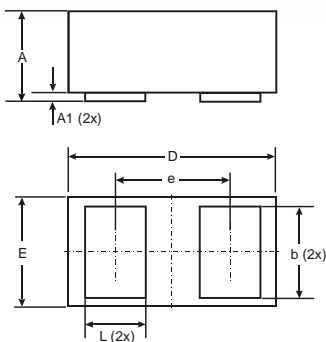
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Product Portfolio

Zener Diode Part Number	Power Rating (mW)	Zener Voltage Range ¹				Maximum Reverse Current ¹		Competitors	Competitor's Part Number
		Nominal (V) @ I _{ZT}	Min (V) @ I _{ZT}	Max V _Z (V) @ I _{ZT}	I _{ZT} (mA)	I _R (μA)	@ V _R (V)		
GDZ5V1LP3	250	5.1	4.840	5.370	5	0.2	2.0	ROHM	GDZ5.1
GDZ5V6LP3	250	5.6	5.310	5.920	5	1.0	2.5	ROHM	GDZ5.6
GDZ6V0LP3	250	6.0	5.676	6.324	5	1.0	2.8	Industry First!	N/A
GDZ6V2LP3	250	6.2	5.860	6.530	5	1.0	3.0	ROHM	GDZ6.2
GDZ6V8LP3	250	6.8	6.470	7.140	5	0.5	3.5	ROHM	GDZ6.8
GDZ7V5LP3	250	7.5	7.060	7.840	5	0.5	4.0	ROHM	GDZ7.5
GDZ8V2LP3	250	8.2	7.760	8.640	5	0.5	5.0	ROHM	GDZ8.2

Switching Diode Part Number	Power Rating (mW)	Peak Repetitive Reverse Voltage V _{RRM} (V)	Max Forward Current I _{FM} (mA)	Forward Voltage Drop V _F (V)	Max Reverse Current I _R (μA)	Reverse Recovery Time T _{rr} (ns)	Total Capacitance C _T (pF)	Competitors	Competitor's Part Number
1SS361LP3-7	250	85	300	1.23 @ 100mA	1.0 @ 80V	4	3	Industry First!	N/A
BAS116LP3-7	250	85	215	1.35 @ 150mA	0.01 @ 75V	3000	3	Industry First!	N/A

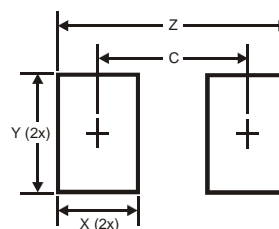
Packaging Details



Bottom View

X3-DFN0603-2			
Dim	Min	Max	Typ
A	0.27	0.35	0.30
A1	0.00	0.03	0.02
b	0.19	0.29	0.24
D	0.595	0.645	0.62
E	0.295	0.345	0.32
e	-	-	0.355
L	0.14	0.24	0.19
All Dimensions in mm			

Suggested Pad Layout



Dimensions	Value (in mm)
C	0.355
X	0.230
Y	0.300
Z	0.610

Notes:

Product page & datasheet <http://www.diodes.com/products/>

For other package configurations not listed on the website or in this announcement, please contact the Diodes Incorporated sales department.

For more information on other existing, low profile switching diodes, please visit Diodes' website.