



LANKERSEMI

SMD ESD Protection Diode

LKE03N3CX22-B



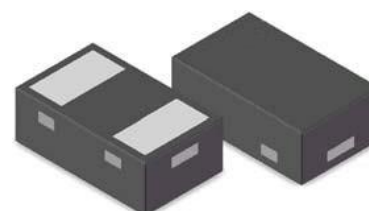
Halogen Free

Rev. 02 — 3 June 2022

Product Profile

1. Features

- 100Watts peak pulse power (tp = 8/20μs)
- Reverse Working Voltage: 3.3V
- Low capacitance: Cj = 22pF typ
- IEC 61000-4-2 : ±30kV contact, ±30kV air
- IEC 61000-4-4 (EFT) : 40A (5/50ns)
- IEC 61000-4-5 (Lightning): 10A (8/20μs)



DFN0603-2L

2. Applications

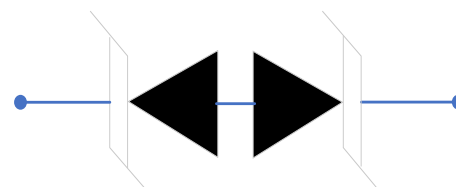
- Cell Phone Handsets and Accessories
- Microprocessor based equipment
- Personal Digital Assistants
- Notebooks, Desktops, and Servers
- Portable Instrumentation

3. Mechanical Data

- DFN0603package
- Molding compound flammability rating: UL94V-0
- Packaging: Tape and Reel
- RoHS/WEEE Compliant

4. Pinning information

Pin	Description
1	Cathode 1
2	Cathode 2





5. Absolute Maximum Rating

Rating	Symbol	Value	Units
Peak Pulse Power ($t_p = 8/20\mu s$)	P_{PP}	100	Watts
Peak Pulse Current ($t_p = 8/20\mu s$) (note1)	I_{pp}	10	A
Lead Soldering Temperature	T_L	260(10seconds)	$^{\circ}C$
Junction Temperature	T_J	-55 to + 125	$^{\circ}C$
Storage Temperature	T_{stg}	-55 to + 125	$^{\circ}C$

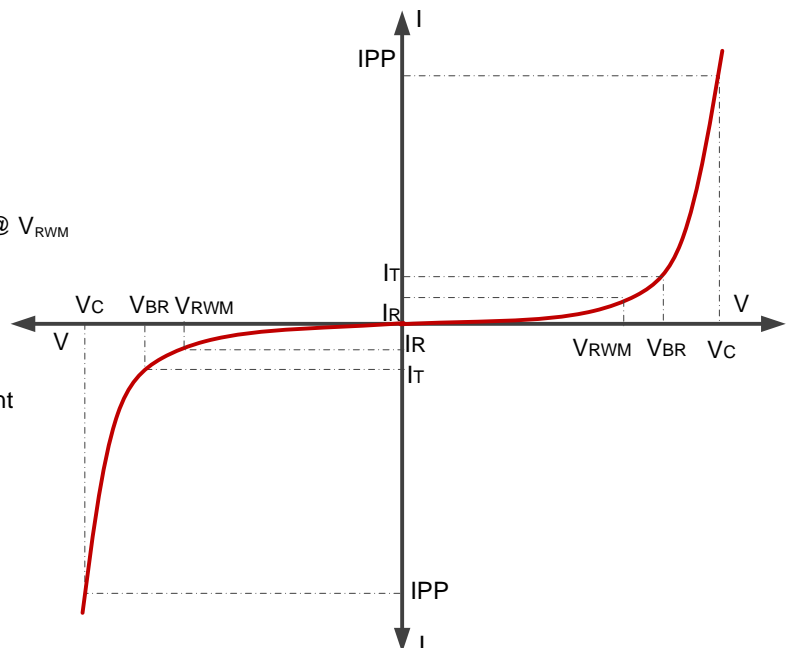
Note.: 8/20 μs pulse waveform.

6. Electrical Characteristics

Parameter	Symbol	Conditions	Min	Typical	Max	Units
Reverse Stand-Off Voltage	V_{RWM}				3.3	V
Reverse Breakdown Voltage	V_{BR}	$I_T=1mA$	3.8			V
Reverse Leakage Current	I_R	$V_{RWM}=3.3V, T=25^{\circ}C$		100	500	nA
Peak Pulse Current	I_{pp}	$t_p=8/20\mu s$		10		A
Clamping Voltage	V_C	$I_{PP}=10A, t_p=8/20\mu s$		8	10	V
Dynamic resistance	R_{DYN}	$I_{PP}=10A, t_p=8/20\mu s$		0.2		Ω
Junction Capacitance	C_j	$V_R = 0V, f = 1MHz$		22		pF

7. Electrical Parameters (TA = 25°C unless otherwise noted)

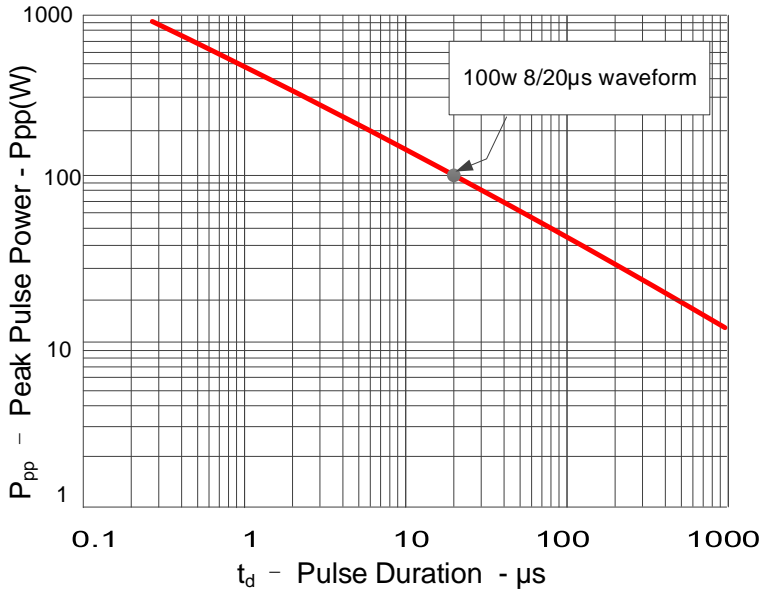
- V_{RWM} Reverse Working Voltage Max
- I_R Maximum Reverse Leakage Current @ V_{RWM}
- V_{BR} Reverse Breakdown Voltage
- V_C Clamping Voltage @ I_{PP}
- I_{PP} Maximum Reverse Peak Pulse Current



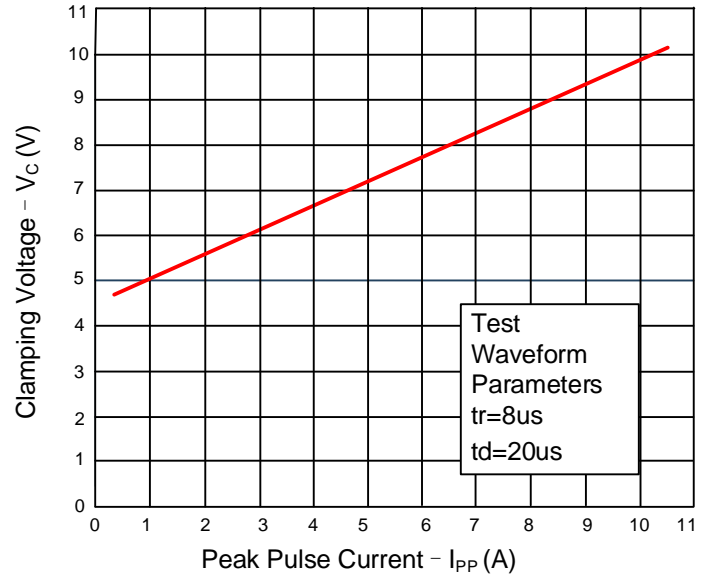


8. Typical Characteristics

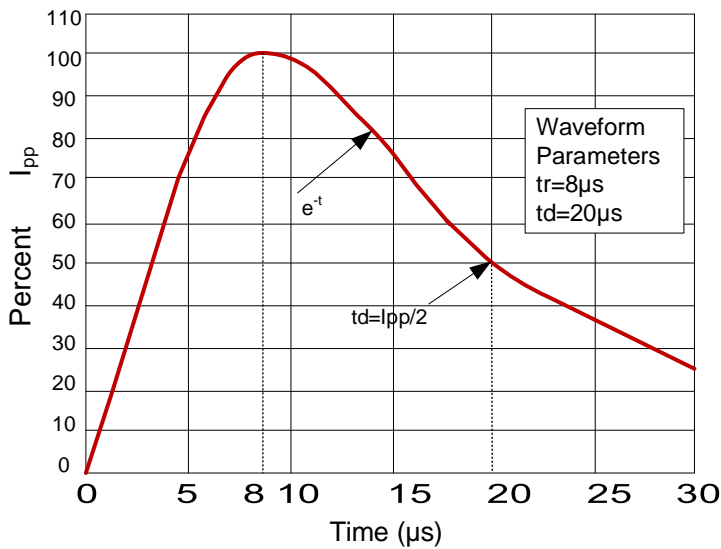
Non-repetitive Peak Pulse Power vs. Pulse Time



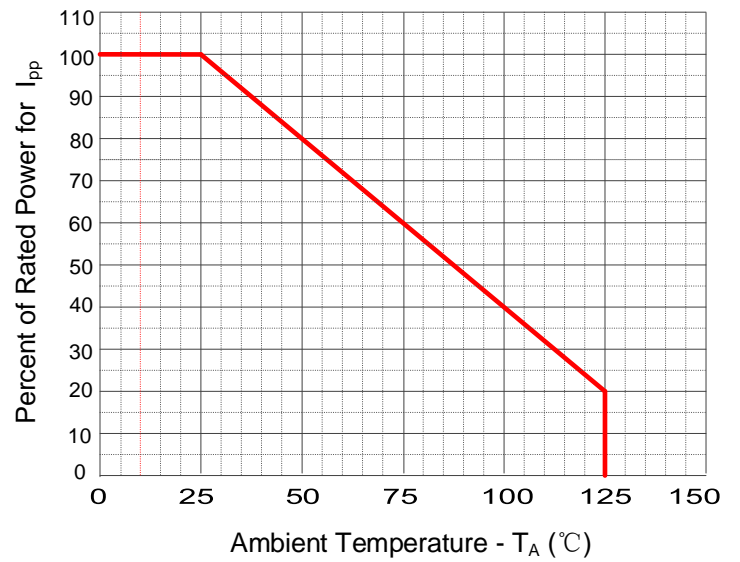
Reverse Clamping Voltage vs. Peak Pulse Current



8/20μs Pulse Waveform



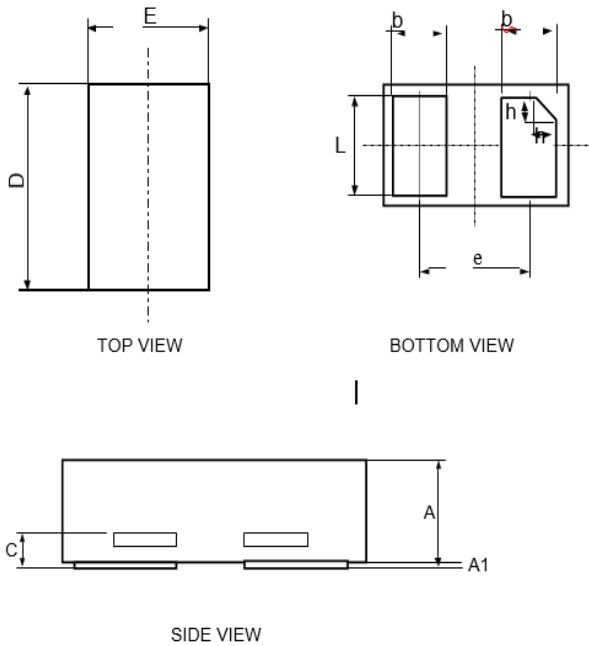
Power derating vs. Ambient temperature





Outline Drawing – DFN0603

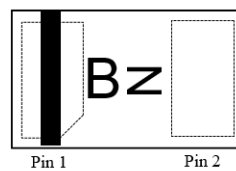
9. Package information



Symbol	Dimensions in millimeters		
	Min	Nom	Max
A	0.28	0.30	0.34
A1	0.00	0.02	0.05
C	0.05	0.10	0.15
D	0.55	0.60	0.65
E	0.25	0.30	0.35
e	0.40		
b	0.13	0.19	0.24
L	0.20	0.25	0.30
h	0	0.05	0.10

10. Marking Code

Part Number	Marking Code
LKE03N3CX22-B	B Z



11. Ordering information

Order code	Package	Base qty	Delivery mode
LKE03N3CX22-B	DFN0603	10k	Tape and reel



12. Contact Information

Online product information is available at www.lanker-semi.com

Buy our products or get free samples, for further information and requests,

e-mail us at: sales@lanker-semi.com

13. Copyrights & Disclaimer

Copyright lanker-semi trademarks Registered. All rights reserved. The material herein may not be reproduced, adapted, merged, translated, stored, or used without the prior written consent of the copyright owner.

Devices sold by lanker-semi are covered by the warranty and patent indemnification provisions appearing in its General Terms of Trade. lanker-semi makes no warranty, express, statutory, implied, or by description regarding the information set forth herein.

lanker-semi reserves the right to change specifications and prices at any time and without notice. Therefore, prior to designing this product into a system, it is necessary to check with lanker-semi for current information.

This product is intended for use in commercial applications.

Applications requiring extended temperature range, unusual environmental requirements, or high reliability applications, such as military, medical life-support or life-sustaining equipment are specifically not recommended without additional processing by lanker-semi for each application.

This product is provided by lanker-semi "AS IS" and any express or implied warranties, including, but not limited to the implied warranties of merchantability and fitness for a particular purpose are disclaimed.

Lanker-semi shall not be liable to recipient or any third party for any damages, including but not limited to personal injury property damage, loss of profits, loss of use, interruption of business or indirect, special, incidental or consequential damages, of any kind, in connection with or arising out of the furnishing, performance or use of the technical data herein. No obligation or liability to recipient or any third party shall arise or flow out of Lanker-semi rendering of technical or other services.

14. Reversion History

Document ID	Release Date	Sheet Status	Change Notice	Supersedes
02	03-Jun-2022	Product data sheet	-	-