



LANKERSEMI

TVS Protection Diode

LKS06N5A140-B

Rev. 02 — 3 June 2022

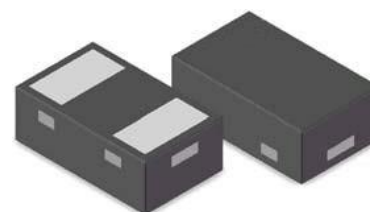


Halogen Free

Product Profile

1. Features

- 2500Watts peak pulse power ($t_p = 8/20\mu s$)
- Reverse Working Voltage: 6.5V
- capacitance: $C_j = 570pF$ typ
- IEC 61000-4-2 : $\pm 30kV$ contact, $\pm 30kV$ air
- IEC 61000-4-4 (EFT) : 40A (5/50ns)
- IEC 61000-4-5 (Lightning): 140A (8/20 μs)



DFN1610-2L

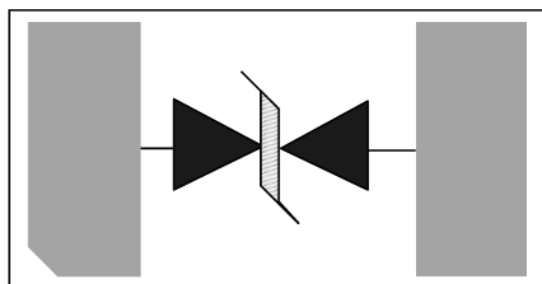
2. Applications

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

3. Mechanical Data

- DFN1610 package
- Molding compound flammability rating: UL94V-0
- Packaging: Tape and Reel
- RoHS/WEEE Compliant

4. Pinning information



DFN1610



5. Absolute Maximum Rating

Rating	Symbol	Value	Units
Peak Pulse Power ($t_p = 8/20\mu s$)	P_{PP}	2500	Watts
Peak Pulse Current ($t_p = 8/20\mu s$) (note1)	I_{pp}	140	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	$^{\circ}C$

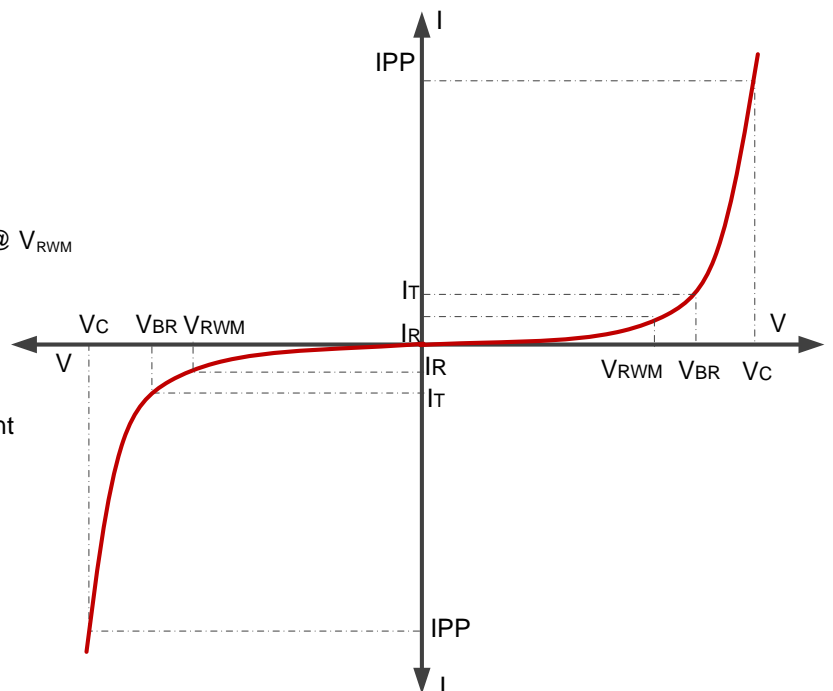
Note.: 8/20 μs pulse waveform.

6. Electrical Characteristics

Parameter	Symbol	Conditions	Min	Typical	Max	Units
Reverse Stand-Off Voltage	V_{RWM}				6.5	V
Reverse Breakdown Voltage	V_{BR}	$I_T=1mA$	7.0	7.2		V
Reverse Leakage Current	I_R	$V_{RWM}=6.5V, T=25^{\circ}C$			1	μA
Peak Pulse Current	V_C	$t_p=8/20\mu s$			140	A
Clamping Voltage	V_C	$I_{PP}=140A, t_p=8/20\mu s$		18		V
Junction Capacitance	C_j	$V_R = 0V, f = 1MHz$		570		pF

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

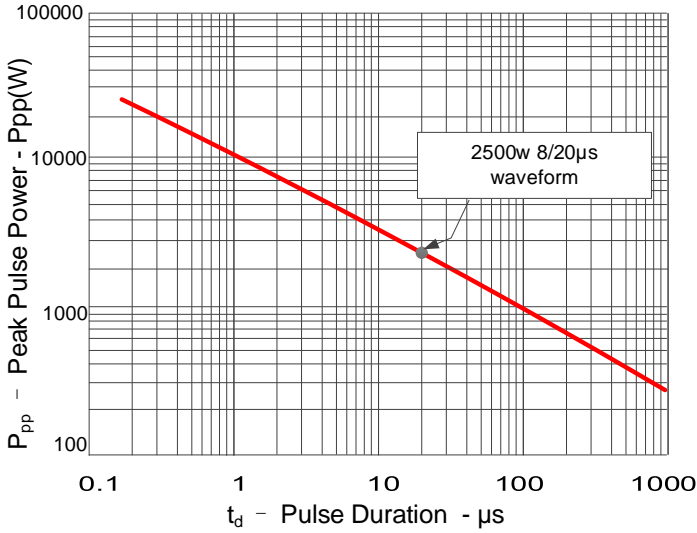
- V_{RWM} Reverse Working Voltage Max
- I_R Maximum Reverse Leakage Current @ V_{RWM}
- V_{BR} Reverse Breakdown Voltage
- V_C Clamping Voltage @ I_{PP}
- I_{PP} Maximum Reverse Peak Pulse Current



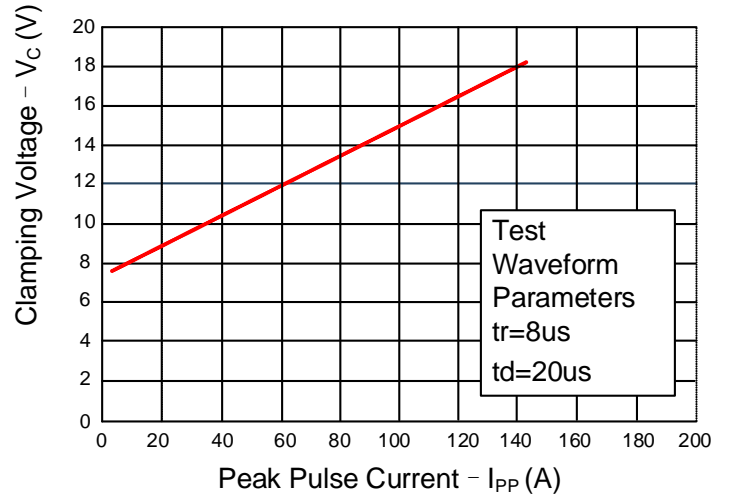


8. Typical Characteristics

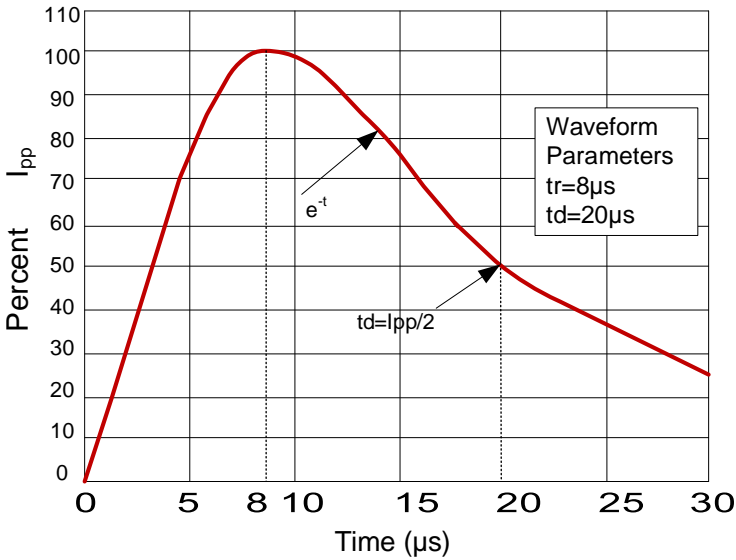
Non-repetitive Peak Pulse Power vs. Pulse Time



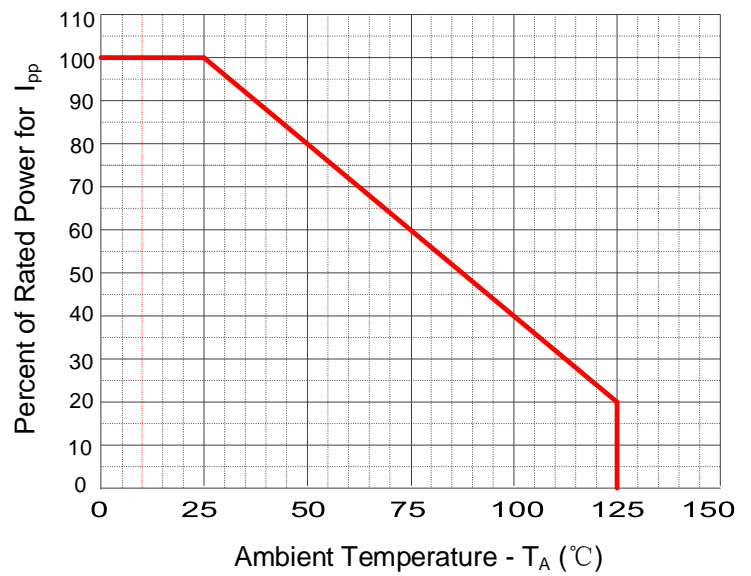
Reverse Clamping Voltage vs. Peak Pulse Current



8/20μs Pulse Waveform



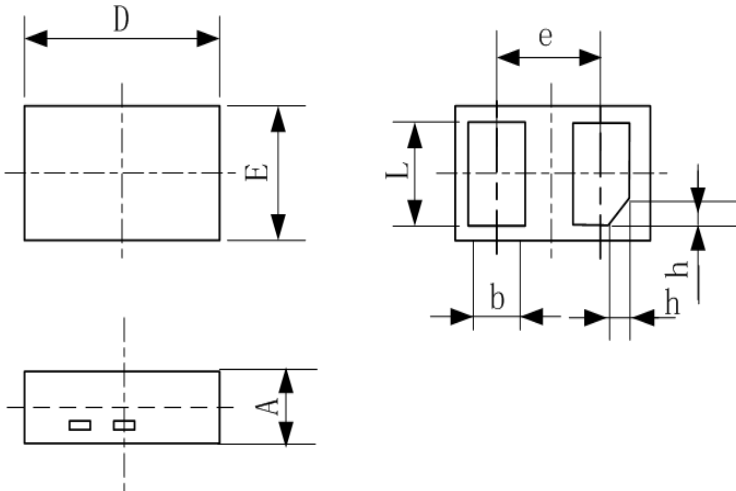
Power derating vs. Ambient temperature





Outline Drawing – DFN1610

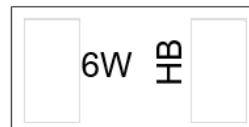
9. Package information



COMMON DIMENSION (MM)			
PKG	DFN1610		
REF.	MIN.	NON.	MAX.
A	0.45	0.50	0.55
D	1.55	1.60	1.65
E	0.95	1.00	1.05
b	0.35	0.40	0.45
L	0.75	0.80	0.85
e	1.10BSC		
h	0.15	0.20	0.25

10. Marking Code

Part Number	Marking Code
LKS06N5A140-B	6W $\frac{6B}{11}$



11. Ordering information

Order code	Package	Base qty	Delivery mode
LKS06N5A140-B	DFN1610	3k	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

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14. Reversion History

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