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Littelfuse, Inc.
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March 17, 2026

RE: LFPCN41561 - Littelfuse TVS STD DFNAK3 Series packing reel and MOQ change

To: Our Valued Customers

In experience of continuous improvement effort, Littelfuse will change standard packing reel from 13" to 7" to support ease of logistic for our customers. Please refer to below for the affected part numbers.

Series	Affected Part Numbers	Previous Standard Pkg. Reel	Previous Standard Pkg. Quantity / pcs	New Standard Pkg. Reel	New Standard Pkg. Quantity / pcs
DFNAK3	DFNAK3-058C-D1	13"	1500	7"	400
DFNAK3	DFNAK3-066C-D1	13"	1500	7"	400
DFNAK3	DFNAK3-072C-D1	13"	1500	7"	400
DFNAK3	DFNAK3-076C-D1	13"	1500	7"	400
DFNAK3	DFNAK3-080C-D1	13"	1500	7"	400

There will be no change to the fit, form, function, quality or reliability of the products. The corresponding datasheet on our website is scheduled to be updated within Q2 2026.

Form, fit, function changes: None

Part number changes: None

Effective date: April 18, 2026

Replacement products: N/A

Last time buy: N/A

This notification is for your information and acknowledgement. If you have any other questions or concerns, please contact your local sales team or product team below for further assistance.

We highly value your business and look forward to assisting you whenever possible.

Sincerely,

Jenny Chen
Product Manager
Commercial TVS Products
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Affected Part Numbers	Series
DFNAK3-058C-D1	DFNAK3
DFNAK3-066C-D1	DFNAK3
DFNAK3-072C-D1	DFNAK3
DFNAK3-076C-D1	DFNAK3
DFNAK3-080C-D1	DFNAK3

DFNAK3 Series

Surface Mount - DFN10*8*3 - 3 kA



Agency Recognitions

Agency	Agency File Number
	E230531

Maximum Ratings and Thermal Characteristics

($T_A = 25^\circ\text{C}$ unless otherwise noted)

Parameter	Symbol	Value	Unit
Operating Junction Temperature	T_J	-55 to 125	$^\circ\text{C}$
Storage Temperature	T_{STG}	-55 to 150	$^\circ\text{C}$
Current Rating ¹	I_{PP}	3	kA
Thermal Resistance Junction to Ambient	$R_{\theta JA}$	70	$^\circ\text{C/W}$
Thermal Resistance Junction to Case	$R_{\theta JC}$	20	$^\circ\text{C/W}$

Note:

1. Rated I_{PP} measured with 8/20 μs pulse.

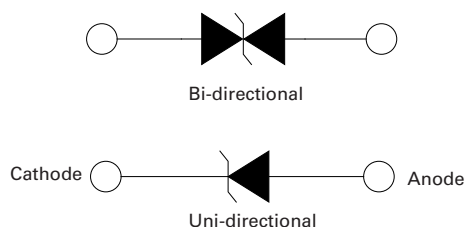
Description

The DFNAK3 series offers a clamping voltage lower than alternative technologies such as MOVs and GDTs. Rated to 3 kA (8/20 μs) surge current, DFNAK3 series offers a high level of protection for mission critical and high reliability applications. It aids compliance to surge requirements such as IEC 61000-4-5 (Level 4). The compact surface mount DFN10*8*3 package is compatible with automated PCBA processes and enables high power density designs.

Features

- Compact surface mount DFN10*8*3 package
- Ideal for automated PCBA processes with reduced manufacturing cost and increased soldering quality as compared to axial leaded packages
- Foldback technology for superior clamping factor
- $V_{BR} @ T_J = V_{BR} @ 25^\circ\text{C} \times (1 + \alpha T \times (T_J - 25))$ (αT : Temperature Coefficient, typical value is 0.1 %)
- Glass passivated chip junction
- ESD protection of data lines in accordance with IEC 61000-4-2, 30 kV(Air), 30 kV (Contact)
- Low dynamic resistance enabling superior low clamping voltage
- UL recognized compound meeting flammability rating UL94 V-0
- Meets MSL level 1, per J-STD-020, LF maximum peak of 250 $^\circ\text{C}$
- Halogen free and RoHS compliant
- Pb-free E3 means 2nd level interconnect is Pb-free and the terminal finish material is tin (Sn) (IPC/JEDEC J-STD-609A.01)

Functional Diagram



Applications

DFNAK3 series is ideal for the protection of I/O Interfaces, V_{CC} bus and other vulnerable circuits used in ICT, Industrial and Consumer electronic applications.

It aids compliance to surge requirements such as IEC 61000-4-5 (Level 4) for interfaces used in exposed PoE ports, Small Cells, Remote Radio Units (RRUs) and Baseband Units (BBUs), and other high power DC bus in harsh environments.

DFNAK3 Series

Surface Mount - DFN10*8*3 - 3 kA

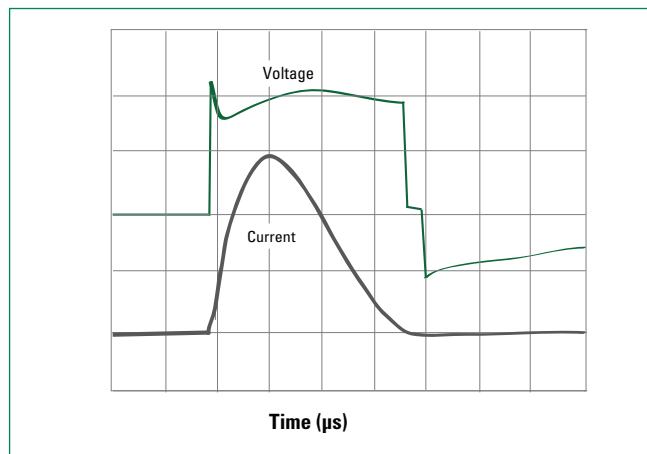
Electrical Characteristics ($T_A = 25^\circ\text{C}$ unless otherwise noted)

Part Numbers (Bi)	Marking	Standoff Voltage (V_R) (V)	Max Reverse Leakage (I_R) @ V_R (μA)	Reverse Breakdown Voltage (V_{BR}) @ I_T		Test Current I_T (mA)	Max. Clamping Voltage V_C @ Peak Pulse Current (I_{PP}) (8/20 μs)		Max. Capacitance 0 Bias 10 kHz (nF)	Agency Approval 
				Min (V)	Max (V)		V_{CL} (V)	I_{PP} (A)		
DFNAK3-058C-D1	58C3K	58	10	64	70	10	100	3000	3.1	X
DFNAK3-066C-D1	66C3K	66	10	72	80	10	110	3000	2.7	X
DFNAK3-072C-D1	72C3K	72	10	80	90	10	120	3000	2.4	X
DFNAK3-076C-D1	76C3K	76	10	85	95	10	125	3000	2.2	X
DFNAK3-080C-D1	80C3K	80	10	89	100	10	130	3000	2.1	X

Note: Using 8/20 μs wave shaped defined in IEC 61000-4-5.

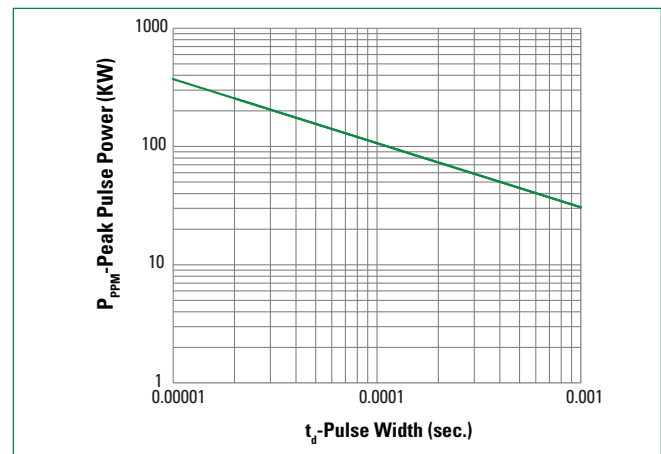
Ratings and Characteristic Curves ($T_A = 25^\circ\text{C}$ unless otherwise noted)

Figure 1 - Surge Response (8/20 Surge current waveform)



Note:
The power dissipation causes a change in avalanche voltage during the surge and the avalanche voltage eventually returns to the original value when the transient has passed.

Figure 2 - Typical Peak Pulse Power Rating



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Figure 3 - Pulse Waveform

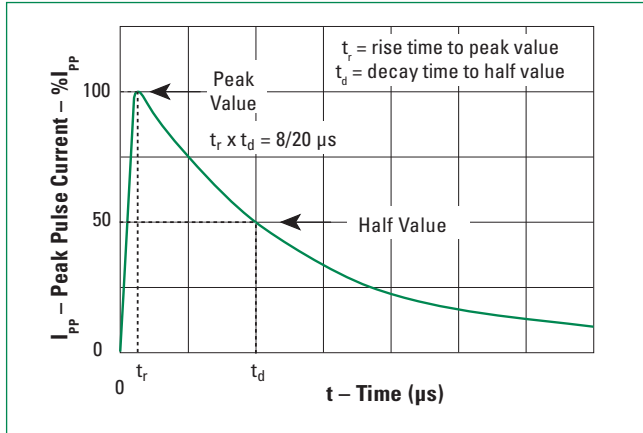
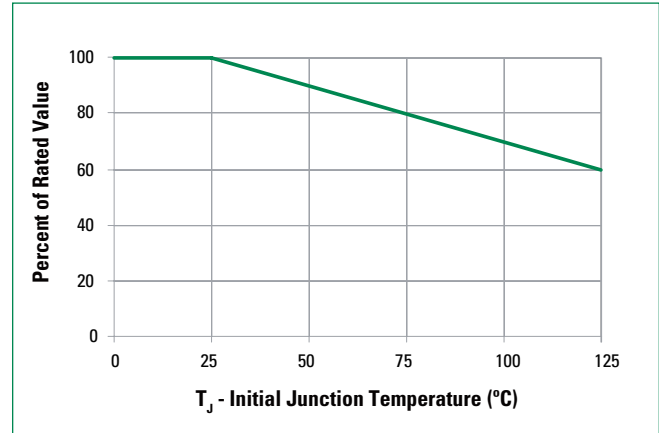


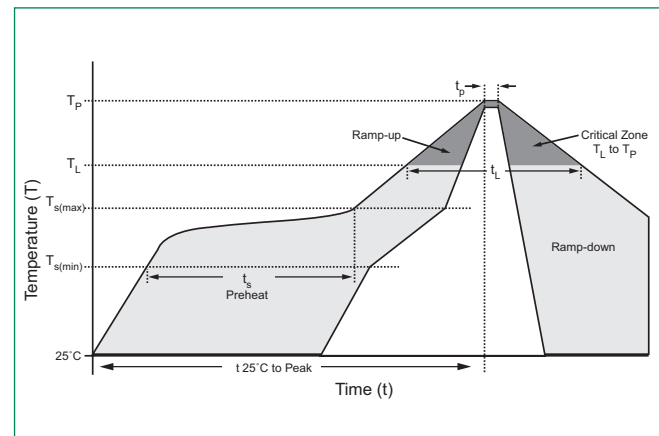
Figure 4 - Peak Power Derating



Please contact Littelfuse for reliability or FIT/MTBF data, the performance is subject to vary and depends on the end customers' application condition.

Soldering Parameters

Reflow Condition		Lead-free assembly
Pre Heat	- Temperature Min ($T_{s(min)}$)	150 $^{\circ}C$
	- Temperature Max ($T_{s(max)}$)	200 $^{\circ}C$
	- Time (min to max) (t_s)	60 – 120 seconds
Average Ramp Up Rate (Liquidus Temp (T_L) to Peak)		3 $^{\circ}C$ /second max
$T_{s(max)}$ to T_A - Ramp-up Rate		3 $^{\circ}C$ /second max
Reflow	- Temperature (T_L) (Liquidus)	217 $^{\circ}C$
	- Time (min to max) (T_s)	60 – 150 seconds
Peak Temperature (T_p)		250 $^{+0/-5}$ $^{\circ}C$
Time within 5 $^{\circ}C$ of Actual Peak Temperature (t_p)		30 seconds
Ramp-down Rate		6 $^{\circ}C$ /second max
Time 25 $^{\circ}C$ to Peak Temperature (T_p)		8 minutes max
Do Not Exceed		250 $^{\circ}C$



Physical Specifications

Weight	Contact manufacturer
Case	UL recognized compound meeting flammability rating UL94 V-0
Terminal	Matte tin-plated leads, solderable per JESD22-B102

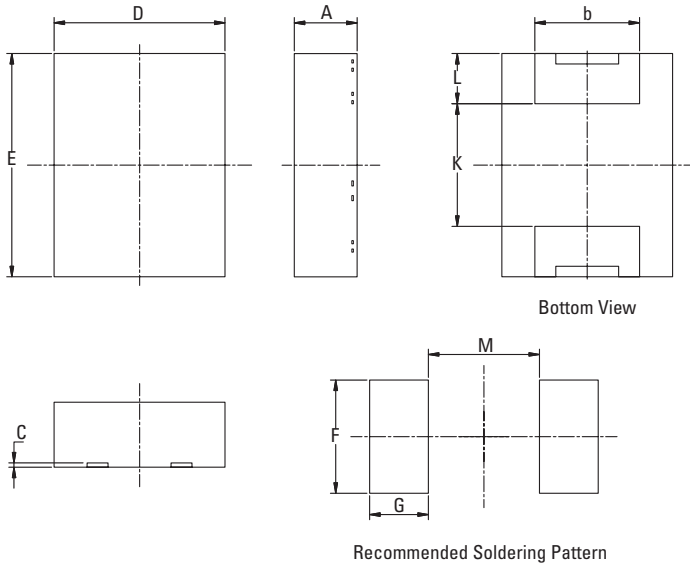
Environmental Specifications

High Temp Voltage Blocking (HTRB)	100 % DC reverse voltage rated 125 $^{\circ}C$, 1008 hours JEDEC, JESD22-A-108
Biased Temp & Humidity (H3TRB)	80 % breakdown voltage (+85 $^{\circ}C$) 85 %RH, 1008 hours JEDEC, JESD22-A-101
Unbiased Highly Accelerated Stress Test (UHAST)	96 hours at $T_A = 130^{\circ}C$ /85 %RH. JEDEC, JESD22-A-118
Temp Cycling (TC)	-55 $^{\circ}C$ to +125 $^{\circ}C$, 15 min. dwell, 1000 cycles. JEDEC, JESD22-A104
Moisture Sensitivity Level (MSL)	85 %RH, +85 $^{\circ}C$, 168 hours, 3 reflow cycles (+250 $^{\circ}C$ Peak). JEDEC, JEDEC-J-STD-020, Level 1
Resistance to Solder Heat (RSH)	+260 $^{\circ}C$, 30 seconds JEDEC, JEDEC JESD22-A-111

DFNAK3 Series

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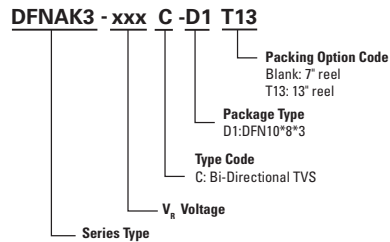
Dimensions - DFN10*8*3



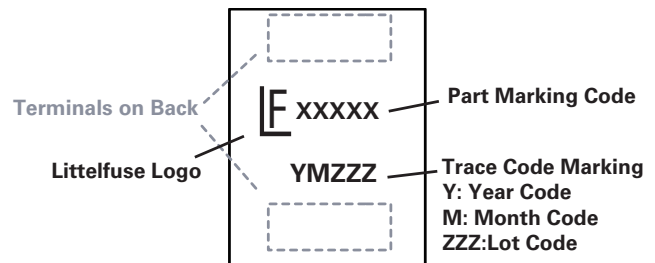
Dimensions	Millimeters		Inches	
	Min	Max	Min	Max
A	2.90	3.10	0.114	0.122
b	4.80	5.20	0.189	0.205
C	0.22	0.28	0.009	0.011
D	8.00	8.20	0.315	0.323
E	10.50	10.70	0.413	0.421
F	5.40 REF		0.213 REF	
G	2.80 REF		0.110 REF	
K	5.85 TYP		0.230 TYP	
L	2.20	2.60	0.087	0.102
M	5.30 REF		0.209 REF	

Dimensions are only for reference and might be changed later on. But the soldering pattern is fixed.

Part Numbering System



Part Marking System



DFNAK3 Series

Surface Mount - DFN10*8*3 - 3 kA

Packing Options

Part Number	Component Package	Quantity	Packaging Option	Packaging Specification
DFNAK3-xxxX-D1	DFN10*8*3	400	Tape & Reel - 24 mm tape/7" reel	EIA STD RS-481
DFNAK3-xxxX-D1T13	DFN10*8*3	1500	Tape & Reel - 24 mm tape/13" reel	EIA STD RS-481

Tape and Reel Specification

